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ORIGINAL ARTICLES.

PREGNANCY AND FIBROID TUMORS.¹

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THE subject assigned to me is not only quite familiar, but is one in regard to which there has been no essential change in the views of accepted authorities during the past twenty years, or since the publication of Gusserow's exhaustive monograph on uterine neoplasms. It would, therefore, seem to be a thankless task to discuss such a well-worn theme. However, with the advance of aseptic surgery, we may at least record more intelligent methods of dealing with the complication in question.

Assuming that the question of fibroids in connection with labor and the puerperium is one that more directly concerns the obstetrician, we shall confine ourselves to what may be called its gynecologic phase.

It is a curious fact that in spite of the somewhat extensive literature of this subject there exists a considerable diversity of opinion with regard to the significance of pregnancy occurring in a fibroid uterus. Thus, we read in a recent text-book that "with tumors above the internal os from 70 to 80 per cent. of the patients may be expected to go on to term;" while a well-known authority (Bland Sutton) states in a clinical lecture just published that "when a woman with a myomatous uterus conceives it is certain that her life is in jeopardy, not only so long as the fetus remains within it, but also when it is expelled, whether this occurs prematurely or at full time." It is evident that the acceptance of either of these extreme views must lead the inexperienced either to adopt an ultra-conservative policy, or to lean too strongly toward radical methods.

It is impossible to lay down general rules for the treatment of a complication in which the conditions differ so essentially in different cases. The skill, experience, and bias of the surgeon, as well as the anatomic conditions, are to be considered. One who regards the presence of a uterine fibromyoma of moderate size as a sufficient indication for a radical operation, irrespective of serious symptoms, will naturally be more indifferent to the interruption of pregnancy than the gynecologist who operates only

for the relief of urgent symptoms, and prefers to save the uterus when this is possible. But, from the standpoint of the general practitioner, whose laudable desire is to avoid operative interference wherever it is compatible with the safety of the patient, it is desirable that a few definite facts should crystallize out of the mass of conflicting evidence.

The statement so frequently reiterated that conception is rare in women with fibroid uterus is doubtless correct, but with certain exceptions. That it does not apply to subserous growths is well known to those who practice among the negro race.

Unfortunately, the presence of small interstitial fibroids in the lower uterine segment, especially those which develop between the folds of the broad ligament, do not by any means offer that hindrance to conception which we are ordinarily taught to believe.

It is unsafe to assume that the presence of any uterine neoplasm is absolutely incompatible with pregnancy; so that the natural corollary is that, having an unmarried patient with a fibroid even of moderate size (unless it be of the subperitoneal variety) it is the duty of the physician to state frankly the possible risks of matrimony and to dissuade her from it.

In considering the influence of pregnancy upon fibroid tumors, and conversely, the effect of such growths upon the course of pregnancy, we shall assume that the elementary facts with regard to the genesis, mode of growth, degeneration, and usual complications of fibromyomata are sufficiently familiar to you. Without subscribing to the extreme view that every fibrous neoplasm, though innocent in itself, is to be regarded as a possible menace to life at some indefinite period in the future, we must all admit that certain changes may occur in the tumor itself, or in its environment, which may cause it to assume serious clinical importance. As is well known, the indications for surgical interference in these cases are progressive increase in the size of the tumor, hemorrhage, and pressure-symptoms—one or all. That these may develop in connection with a fibroid which has previously been quiescent under the influence of pregnancy, at once suggests the importance of the complication. That such a tumor, especially when interstitial, should rapidly enlarge under the influence of the increased blood-supply is self-evident. This enlargement is not always permanent;

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it may be simply due to edema, but none the less it gives rise to marked pressure-symptoms, especially if impacted within the pelvis.

Changes in position of the tumor and uterus as the latter enlarges are not unimportant. A subserous growth at the fundus may cause retroflexion and incarceration of the gravid organ, or may press it downward upon the bladder.

The liability of pedunculated tumors when displaced by the enlarged uterus to suffer torsion of the pedicle—with all the serious results which may ensue—has been noted by several writers. Moreover, the occurrence of localized peritonitis with the subsequent fixation of the growth and uterus by adhesions has often been demonstrated at the operating-table.

Among the internal changes which may take place in the neoplasm itself in consequence of prolonged pressure, obstruction to the circulation, etc., are hemorrhage, cystic degeneration, and even necrosis.

Clinically, the site of the growth is by far the most important point. All agree that subserous tumors at the fundus, even when of large size, may be influenced but slightly, if at all, by pregnancy, which may advance to full term and be terminated in an entirely normal manner. Small interstitial growths may be equally quiescent, and many cases have been reported in which submucous polypi have been recognized only after the birth of the child. But, it is equally certain that growths of either the subserous or interstitial variety situated in the true pelvis, especially if these be impacted or adherent, may give rise to disturbances entirely out of proportion to their size, hence they always cause more or less apprehension should pregnancy occur.

Did time permit, I could report fatal cases of ureteral and intestinal obstruction, of septicemia, and of thrombosis, due to the pressure exerted by fibroid tumors of small size complicated by pregnancy. I have discussed this subject in a former paper on "Impacted Intrapelvic Tumors" (MEDICAL NEWS, October 30, 1897). Nor is this the only danger from growths so situated. If abortion occurs spontaneously or is induced, even as early as the second or third month, the cervical canal may be so encroached upon that it is impossible for the product of conception to pass, and then serious hemorrhage or sepsis may result.

Fortunately the condition of the endometrium in cases of sessile submucous fibroid is such that conception is unlikely to occur, but when it does, premature expulsion of the fetus is the rule, and with it often an alarming hemorrhage. We need not dwell upon the dangers of conception in connection with intra-uterine polypi—a somewhat rare compli-

cation. Sloughing of the growths during pregnancy or after delivery is always to be apprehended, as experience proves.

As to the influence of fibroid tumors on the course of pregnancy, it may be said in general that we cannot always predict what the outcome of an apparently unfavorable case will be. While the gravid uterus is apt to enlarge irregularly, and often to suffer displacement, as before stated, it may, as it rises out of the pelvis, carry with it a tumor which was supposed to be impacted, and thus naturally prevent the complications which were feared. Such a fortunate development could, of course, not be hoped for in the case of growths in the lower segment. The latter, however, may not affect the course of the pregnancy, which goes on to term with all the risks attending labor under such circumstances. With large interstitial fibroids, on the other hand, the probability of early detachment of the placenta is great, or if pregnancy advances there is imminent risk of accidental hemorrhage. The imperfect contractile power of the uterus in this condition is well recognized, as is also the consequent risk of hemorrhage and retention of the product of conception.

Although foreign to the present discussion, it may not be amiss to call attention to the fallacious view that while fibroids may enlarge under the influence of pregnancy, they undergo a notable diminution in size, or even disappear, during the process of involution. Under favorable conditions (as in the case of small intramural growths) such a diminution may sometimes be observed, but to hope that such a growth will entirely disappear is hardly less reasonable than to expect its total removal by electricity. One would hardly recommend pregnancy as a cure for fibroids.

The question of the diagnosis of pregnancy in a fibroid uterus is one which concerns the general practitioner quite as much as the specialist. The history may be entirely misleading, especially where the patient is unmarried or the periods are irregular. Rapid enlargement of the tumor in a woman who has previously been under observation, in the absence of evidences of degenerative changes, would cause suspicion. This sign alone led to the diagnosis of pregnancy in two cases in which I performed hysterectomy for large multiple fibroids. Both patients were unmarried, one being a young girl, the other a negress so advanced in years that she was thought to have passed the menopause.

With a retro-uterine or intraligamentous growth the diagnosis would be comparatively easy because the softer body of the uterus could be isolated from the tumor. Asymmetry of the uterus is not an infallible sign, by the way, as it has been noted in

normal pregnancy. Dermoids and solid tumors of the ovary, when impacted in the cul-de-sac, and adherent to the uterus, are so often mistaken for fibroids that the error should never be a subject for criticism.

If there is any doubt as to the true condition, examination under anesthesia is not only advisable, but obligatory. It is so important to determine not only the fact of pregnancy, but the precise character, relation, and range of mobility of the tumor, that one cannot afford to neglect any means of arriving at an exact diagnosis. This is especially true if the question of the performance of a radical operation is under consideration. Any one can recognize a good-sized fibroid; this is an elementary point. There are many other things to be taken into consideration.

The reproach that gynecologists of the present day have become more careless in regard to diagnosis as they have increased in operative skill is not undeserved. We do not examine either the inside or the outside of the uterus as carefully as did our predecessors in the art, being content to wait until the abdomen is opened before trying to settle disputed points. The prompt recognition and proper appreciation of the complication which is under discussion calls for no small amount of diagnostic acumen. If skill and experience are requisite for the making of a correct and exhaustive diagnosis, certainly in the decision as to the best course of treatment to pursue there is opportunity for the display of the ripest judgment. As was stated at the outset, no fixed rules can be applied. Each case must be decided by itself, since no two are exactly alike. While the physician will naturally be somewhat influenced by the wishes of a patient who earnestly desires offspring, he cannot allow this factor to have much weight when it is evident that it is impossible for pregnancy to continue to the full term without imminent risk to the patient.

When the tumor, or tumors, is subserous and the uterus enlarges symmetrically, there will, of course, be no occasion for solicitude. A pedunculated, movable growth will bear watching, since symptoms of torsion may require a prompt resort to celiotomy; or, it may slip down into the pelvis, so that it will be necessary to push it above the brim. A fibroid of considerable size, situated in the anterior or posterior uterine wall, may also take care of itself and cause no solicitude even during labor.

It is hardly necessary to say that a woman with a large interstitial fibroid who becomes pregnant should be kept under careful observation. Doubtless such patients may go on to full term, though rarely. Few of us would care to have any member of our family

take such a risk, but would prefer to terminate the pregnancy at an early stage, or to at once perform hysterectomy.

From what has been said about tumors springing from the lower uterine segment, it will be inferred that in these cases pregnancy is a serious complication. The dystocia which is present during labor is a familiar theme in all text-books on obstetrics. From a gynecologic standpoint they are equally important. While it is granted that pregnancy may often continue to full term with impacted pelvic tumors, it is certain that the patient will suffer from various disturbances, and has the almost certain prospect of a difficult labor, usually with a dead child, unless an abdominal operation is performed. There can be little question that if an intelligent effort to dislodge the tumor from the pelvis under anesthesia is unsuccessful, the uterus should be emptied, provided that the cervical canal is not so contracted that it is impossible for the fetus to pass. It will be a question in most cases in which the patient is not seen until the fifth or sixth month (or even the fourth), whether it would not be better to allow the pregnancy to advance to term, and then to perform an elective Porro-Cæsarian operation.

The possibility of enucleating *per vaginam* an extraperitoneal (or even an intraperitoneal) fibromyoma of the lower segment will naturally suggest itself to one who is familiar with such work, and this procedure if practicable would seem to be preferable to sacrificing the entire uterus. It should be borne in mind, however, that the increased vascularity of these growths during pregnancy entails some risk of hemorrhage, so that the surgeon may be obliged to ligate the uterine arteries in order to control bleeding, or perhaps to extirpate the uterus. Pregnancy is not necessarily interrupted, and if it is, abortion does not imply an untoward result for the operation, since the obstruction to the escape of the product of conception has been removed.

The persistence of pregnancy after accidental injury of the gravid organ during the course of abdominal operations shows that myomectomy by the upper route may be attempted with good prospect of success under favorable conditions. Certainly an explorative celiotomy does no harm, and may enable the surgeon to free an impacted or adherent tumor from the pelvis, so that the patient may go on to term—a far more rational procedure than to attempt enucleation of the growth *per vaginam*, with the finger, unaided by the eye. In fact, it may be better in a doubtful case to at once perform celiotomy in order to determine the exact nature and relations of the tumor. The incision may then be closed, and the growth attacked *per vaginam*, especially if pus

be present, as in a successful case reported by the writer.

The indications for supravaginal amputation or total extirpation do not differ essentially from those in the case of the non-pregnant fibroid uterus. Rapid enlargement, marked pressure-symptoms, serious impairment of the general health, may lead the surgeon to adopt radical measures at the outset. He will be influenced in this decision by the fact that under these conditions pregnancy can not, and should not, continue, and the inevitable abortion will diminish the chances of recovery from a subsequent operation. The operation itself is no more difficult than under ordinary circumstances, and the prognosis is equally good. The abdominal is certainly preferable to the pelvic route, in view of the more perfect control of bleeding and the diminished risk of injuring adjacent structures, especially the displaced bladder or ureter.

To summarize: Submucous polypi may be removed in the ordinary manner when they are accessible. Subperitoneal growths can be disregarded unless they are pedunculated and become impacted in the pelvis, undergo torsion of the pedicle, or contract adhesions. Liberation of the tumor under anesthesia failing, it is entirely in the line of conservatism to open the abdomen, to separate adhesions, or to remove the tumor, leaving the uterus undisturbed.

Tumors in the lower segment may be let alone if they are found to rise out of the pelvis as the uterus enlarges. Should the contrary be true and pressure-symptoms arise, abortion should be induced if the patient is seen at a sufficiently early stage to allow the fetus to pass the obstruction.

Conservative myomectomy may be performed subsequently, and the hope of a second normal pregnancy may be confidently held out. If there is any reasonable doubt as to the diagnosis, explorative celiotomy is indicated, especially in view of the frequency with which impacted ovarian tumors are mistaken for fibroids. Liberation or removal of the tumor may not interfere with the course of the pregnancy. Should the tumor not be discovered until the latter half of pregnancy, it would seem better (in the absence of serious pressure-symptoms) to wait until near full term, and then to perform Cæsarian section, followed by supravaginal amputation, subject, of course, to the wishes of the patient.

The usual indications for hysterectomy in cases of fibroid tumor become more urgent if pregnancy occurs, since an exaggeration of the symptoms may be expected. The patient cannot bear a living child, her life is imperiled, and conservatism is out of place under the circumstances. The abdominal is preferable to the vaginal route for the extirpation of the pregnant fibroid uterus.

LOCAL ANESTHESIA, WITH SPECIAL REFERENCE TO THE INFILTRATION METHOD.*

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ATTENDING SURGEON TO THE GOOD SAMARITAN DISPENSARY.

THE introduction of cocaine as a local anesthetic nearly fifteen years ago marked an era in surgery greatly enlarging its limits. Mindful of the suffering that mankind has been spared by the use of this agent, an everlasting tribute can best be paid to its introducer, Dr. C. C. Koller,¹ by daily extending the sphere of its usefulness.

In the first decade of its employment unintelligent, reckless application claimed for it a considerable number of victims. Thus, Reclus² quotes one authority who, up to 1893, collected 128 deaths from cocaine. In a careful analysis of sixteen cases Reclus accounts for the causes of death as follows: (1) "The use of very strong solutions in too great quantity. (2) The sudden emptying of large quantities of the drug into the general circulation, by puncture of a vein or injection into areas, vascular by virtue of the presence of an inflammation, or naturally so, as is the case with the head. (3) Operating in the erect position was a factor in all of these cases."

Untoward experiences like these called for improvements in the method of its administration, which but recently culminated in the infiltration anesthesia of Schleich. In an effort to make it clearer wherein the true advance of this latter procedure lies, I will rapidly sketch the evolution of cocaine anesthesia.

At first the strength of the solution was considered most important, and it soon became a dictum that 10 to 30 minims of a four-per-cent. solution could be safely injected. On account of its concentration the small volume of cocaine which could be employed limited the extent of the field of operation. When, following its very liberal use, toxic symptoms supervened, the administration of such antidotes and antagonists as caffeine, whisky, and amyl nitrite was resorted to; hence, the suggestion of Gauthier³ to add, as a prophylactic, a small quantity of nitroglycerin when using stronger solutions.

The earliest technic consisted of the subcutaneous injection of stronger solutions of from four to five-per cent. so as to form a depot from which the drug was carried by the capillary or lymph current in a more or less diluted form to the tissues and nerve filaments. After the lapse of a few minutes anesthesia occurred, most marked at the point of injection, and growing less toward the periphery of

*Read at a meeting of the Metropolitan Medical Society, January 25, 1898.

the anesthetized area. This method is referred to as regional anesthesia, and identified with it are the names of Landerer⁴ and Woelffler.⁵

The next to perfect a method was Corning.⁶ In his brochure, entitled "Local Anesthesia," he calls the procedure "local anesthesia by incarceration of the anesthetic in the field of operation." The steps of this method are, first, emptying the extremity of its blood up to the area intended to be operated upon, and then injecting subcutaneously the four-per-cent. solution of cocaine, awaiting its diffusion by the blood still in circulation, and finally applying the Es^march constrictor to prevent further absorption. With this method Corning performed major operations, but, rather frequently encountering toxic phenomena, he advocated the use of one-per-cent. solutions, and in his appendix says that "by heating the solution its anesthetic effect is enhanced so much that a 1-500 and even 1-1000 solution of cocaine has performed good service. Thus, we shall see that the greater credit must redound to Corning for having anticipated almost all the conditions which we now regard as recent improvements.

The teachings of Corning were temporarily unheeded, and it remained to Reclus,⁷ seven years later, in his able articles on the subject, to again advocate a reduction of the strength of the solutions to one and two per cent. for all purposes. In addition, he proposed the technic which consists of anesthetization of the tissues successively from the surface to the depth. This is, perhaps, the method most in vogue among us. Reclus' success in the performance of 3000 operations, a large number of capital ones being included, went far to popularize this method.

In 1894 Krogius⁸ enriched the technic of local anesthesia by a procedure which might be styled peripheral anesthesia, and was dependent upon the injection of cocaine into or about a nerve trunk, thus causing anesthesia in the area of peripheral distribution of the nerve. Here, again, priority for this advance must be claimed for Corning, and in 1890 Pernice⁹ refers to this procedure as being practised in the Clinic of Professor Oberst of Halle. Success with this is attendant upon the most fortuitous condition of having the area operated upon solely innervated by the injected nerve; for otherwise, the free anastomosis of nerve filaments compensates for the exclusion of nerve impulses from any limited source.

This completes the first decade of cocaine anesthesia, during which there was as wide a latitude in the method of its application as now characterizes the administration of general anesthetics.

Desirous of still further promoting the safety of

using cocaine, and thus make it a competitor of the more dangerous general anesthetics, Schleich of Berlin studied the question anew. His experiments resulted in the method, entitled "Infiltration Anesthesia," which he officially demonstrated at the German Surgical Congress in 1894. Subsequently he published a report of his successful application of the new method in 3000 cases, together with his improvements in general anesthesia under the title of "Schmerzlose Operationen."¹⁰

Schleich's starting-point was the anesthesia dolorosa of Liebreich. This phenomena, following the injection of indifferent fluids in animals, is characterized by a preliminary period of hyperesthesia due to the irritation of nerves, followed by anesthesia dependent upon the destruction of the nerve filaments. Of such a nature is the anesthesia produced by the injection of guaiacol dissolved in sweet almond oil, a mixture introduced by Champonniere.¹¹

Schleich found that the injection of water caused an anesthesia dolorosa, and that the injection of a six-tenths-per-cent. sodium chlorid solution was unattended by any disturbance of sensation. He, therefore, premised the existence of a concentration intermediate between these two which would produce anesthesia without paresthesia, and he realized it in a two-tenths-per-cent. sodium chlorid solution. This solution ought then in itself to suffice were it not that the use of anesthetics is called for in tissues rendered hyperesthetic by pathologic conditions; therefore, the necessity of adding some narcotic poison such as cocaine in a strength of .02 per cent., this being the minimum concentration capable of producing anesthesia. For morphin likewise a minimum was found. It was incorporated in the solution for the purpose of allaying the paresthesia incident to the wearing off of the anesthesia. With a .2-per-cent. sodium chlorid solution as a vehicle a further reduction of the amount of cocaine and morphin was practicable. This led to the construction of the following graded solutions:

(1) Cocain mur., 0.2; morph. mur., 0.025; sodium chlorid, 0.2. (2) Cocain mur., 0.1; morph. mur., 0.025; sodium chlorid, 0.2. (3) Cocain mur., 0.01; morph. mur., 0.005; sodium chlorid, 0.2.

To each of these is added 100 c.c. of distilled sterilized water. A few drops of a five-per-cent. solution of carbolic acid is added to prevent decomposition. To effect anesthesia over large areas with these weaker solutions Schleich conceived the ingenious method of rendering the tissues artificially edematous. Briefly stated, the technic is as follows: With a hypodermic syringe, while ether or ethyl chlorid spray is played upon the skin so as to render painless the first puncture with the needle, the fluid is injected merely into the skin so as to raise a wheal.

In the periphery of the latter the needle can be again inserted without pain and another wheal formed. This is repeated to the extent of the incision contemplated. The same procedure is followed in the depths of the wound.

There are a number of minor details which I will mention in recounting my experiences within the last two years, based upon the application of this method in nearly 400 cases. Not unlike others, I found my early failures dependent upon poorly constructed syringes. The Neal dental syringe I have found answers all purposes. It can be easily sterilized, being entirely of metal, and for the same reason the calibration is more perfect than when glass cylinders are used. The packing, originally of leather, now of asbestos, is in the stuffing-box at the head of the instrument into which the piston fits. If there is any leakage the packing may be compressed with the wrench. The piston and inner casing of the cylinder are made of non-corrosive metal. The power at times necessary can be developed with this syringe. Short, sharp, slender, and straight needles, to the exclusion of the curved ones, have been found adequate; a quick sharp thrust with such a needle at times causes less pain than the ether spray which we have latterly discarded.

Solutions must always be freshly prepared from powders or tablets, and with Schleich we hold that the temperature of the solution should be that of the body or below it. In the few instances in which we followed the suggestion of T. Costa¹² to raise the temperature of the solution to 100° or 105° F. much pain was caused. Our experience is confined to the use of solutions Nos. 1 and 2. In non-inflammatory conditions, where a large surface is to be exposed to operation, No. 3 is indicated.

Under all circumstances it is best to begin the infiltration in healthy tissue, and, when the conditions can be prejudged, to infiltrate every thing at once. Infiltration in the open wound is more difficult, as the fluid escapes. One should not aim, as the tendency is, to infiltrate over the surface, but should inject the fluid at right angles to the surface into the depth, forming the same succession of wheals as in the beginning. The skin incision is made larger than is necessary with general anesthesia, so as to obviate the pain incident to any strong retraction of the margins of the wound when working in the depth. Infiltration increases the thickness of the tissue layers even if much fluid escapes on cutting. The waxy appearance of the tissues and the sensation imparted to the knife will indicate to the operator whether he is working in infiltrated areas. The zone of hyperemia which surrounds the infiltrated area also affords an index of the extent of the anesthesia. To

afford a guide, I colored the fluid with methyl-blue. This procedure gave satisfaction, yet on a few occasions the diffuse discoloration obscured large veins, which, on being cut unrecognized, caused annoying hemorrhage.

Infiltration renders the parts fairly bloodless, yet wherever possible the constrictor should be applied, and that, as Hofmeister¹³ suggested, after the injection; for otherwise the blood still in the extremity will be displaced under stress of pain. Where hemostasis was necessary longer than five minutes I preferred digital compression by an assistant.

In the majority of instances the anesthesia continued about half an hour, and was unattended at all times by symptoms of poisoning. No regard was paid to the position of the patient. Fainting, which occurred a few times with patients in the erect attitude, was due merely to psychic impressions occasioned by witnessing the operations. The patients were instantly restored to consciousness by the simple expedient of doubling them upon themselves so as to place the head between the legs. In children the method was a failure, for the reason that they became unruly upon seeing the knife. At all times delicacy of touch is necessary, and blunt dissection is to be dispensed with as much as possible; nor is sponging to be as vigorously indulged in as when general anesthetics are employed.

The exquisitely acute painful affections, furuncle, carbuncle, and whitlow require a thorough mastery of the technic. Not infrequently the difficulties obliged us to resort to the method of Reclus or nitrous oxid. Here also we had occasion to test the method recently suggested by Hackenbruch under the title of "Circular Anesthesia."¹⁴ From two points opposite each other he injects the fluid so as to surround the area to be operated upon. He uses a solution of cocaine and eucain, of each one-half per cent. The cocaine thus overcoming the pain caused by the eucain, which I found to be the case when eucain was substituted for cocaine in Schleich's solutions. The advantages in favor of eucain are its stability when subjected to heat for purposes of sterilization, and, being a laboratory product, it is a surrogate for Nature's supply in time of need.

It may seem paradoxic to say that deep-seated abscesses are more amenable to operation by this method than those that are superficial; for in the latter the skin and loose cellular tissue are as a rule already infiltrated with inflammatory products. No difficulty will be experienced if the caution of Schleich is followed: to first make a small incision into the abscess to relieve tension and then proceed with the infiltration. In the removal of growths the displacement previously alluded to is a temporary em-

barrassment, and it seems to me that the greater field for the extension of this method is just in this class of cases, though I recall decided failure or obstacle in the removal of friable glands. In the extirpation of an angioma, the profuse hemorrhage washed away the solutions so quickly that in spite of fifteen syringefuls of solution No. 1 the anesthesia was imperfect. Ganglions intertwining with the tendons could be removed with ease. Three ranula removed afforded difficulty only on account of the motions of the tongue, and in the removal of a growth from the tongue the hemorrhage was annoying. Foreign bodies could be quickly located; for the track made by their introduction stands out very clearly in the white edematous tissue. In the removal of ingrown toe-nails no difficulty was experienced.

Sequestra were easily removed from the bones of the hand, radius, humerus, skull, and a subperiosteal resection of a metatarsus was easily performed. In all of these the bone could be infiltrated through the cloaca which existed in each instance. Once, in the operation for hallux valgus, the bone had to be divided under nitrous oxid, the remainder of the work being completed under infiltration. Amputations and exarticulations of fingers afforded the least trouble. In the extraction of teeth, I had a personal experience of the efficiency of this method. Some dentists advocate the addition of antipyrin¹⁵ to the solution to enhance and prolong the anesthetic effect and control the hemorrhage.

For sewing wounds the interrupted suture is best adapted, for with it one can better approximate the edges which very often lie at different levels owing to variations in the quantity of infiltrated fluid. Tenorrhaphy was successfully performed three times. In the hand a larger incision than necessary had to be made, because the fat protruded into the wound on account of the pressure of the injected fluid. For the excision of ulcers, curetting of granulations, and sinuses, and circumcision in adults the infiltration method is very suitable. My latest triumph with infiltration consisted of two successful Thiersch skin-grafts for large defects on the neck following the extirpation of carbuncles.

Following the employment of infiltration, wounds, as a rule, healed kindly, and never following the use of the method in infected areas was there any lymphangitis or dissemination of the infectious material. At all times a rigid observance of the rule to cut only in infiltrated areas will contribute to success.

The following contraindications or limitations to the infiltration method suggest themselves:

1. Whenever the limits of disease are not reasonably definable.

2. In diffuse cellulitis requiring free incisions.
3. In malignant new growths, for here there is danger, says Braatz, of forcing the *matrices morbi* into the lymph-channels. The same danger is to be apprehended in conditions of diffuse tuberculosis.
4. Special attitudes long to be maintained during operation. On sentimental grounds, in operations requiring exposure, a general anesthetic may be preferable.

Reclus and Schleich, with their large experiences with their respective methods, stand for the use of cocaine, as the rule, and general anesthesia as the exception.

It is perhaps too early in the career of the infiltration method to assign figures, but so much is certain, that the majority of authors consulted are of the opinion that a decided inroad has been made upon general anesthesia since the introduction of the new method.

The skepticism I first entertained as to the efficiency of infiltration anesthesia gave way with increased experience to that confidence which I feel certain will be the position of those who give this method the painstaking study its successful application calls for.

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CRANIAL DISTORTION IN THE NEWBORN AND ITS CONSEQUENCES.

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DR. MARION SIMS regarded distortion of the cranial bones during childbirth as a cause of trismus neonatorum, and recommended placing the child in such a position when recumbent as would tend to restore the normal shape of the head, together with the use of gentle manipulation. Other dangers beside that of trismus emphasize the necessity for the precautions suggested by Dr. Sims. For example no accident of childbirth, not even compression by the forceps, is so likely to result in permanent injury as is delivery with the head in the occipitoposterior position. Such labors are always difficult and often

impossible, and yet again and again in consultation the writer has seen the source of the difficulty pass unrecognized. It seems to be the fact that the general practitioner is, as a rule, not very sharply alive to the dangers of this particular form of abnormal labor. Its mechanism, as the occiput sweeps over the perineum, is such as to crowd the bones together from before backward in a way that does not occur when the occiput is in its normal position under the symphysis. Thus originates a peculiar deformity at the back of the head readily recognized when attention has once been directed to it.

The permanent results that may follow this particular form of cranial distortion during delivery are well illustrated in two cases which recently came under the observation of the writer, and which appeared to be typical. Both the patients were women and had reached adult life. One of them, who exhibited by far the milder case, had for years been in an institution for the feeble-minded. In her case overlapping and synostosis of the occipital and parietal bones along the line of the lambdoid suture were well marked; there was a prominent ridge in that location, and the back of the head and neck were in a line with each other, and almost perpendicular when the patient was in an upright position. No other cause for this deformity is known than abnormal delivery with the head in the occipitoposterior position. The crowding together, overlapping, and distortion of the bones thus produced are specially liable to be maintained by the habit which nurses have of placing children habitually on the back. Simply to turn the child on its side tends to restore the normal shape by giving free play to the elasticity of the bones which in most cases is sufficient to this end without any manipulation whatever. If the deformity becomes permanent there will ensue more or less impairment of the functions of the brain of life-long duration. In the case just described as the result of the malformation at the back of the head, the power of muscular coordination was more affected than mentality, and the patient had been thought to have a mild form of St. Vitus' dance.

The other patient to whom reference has been made had a similar deformity of the back of the head, with even more pronounced symptoms of incoordination. Her gait was staggering and awkward, her hands writhing and twisting in an aimless way on any attempt at motion, and she was able to utter only stammering and inarticulate sounds. At first glance she would be regarded as a gibbering idiot, and yet the functions of the cerebrum were but slightly impaired as compared with those of the centers at the back and base of the brain. Memory and

reasoning were fairly good for one in her helpless condition.

There are multitudes doubtless suffering from lesser degrees of impairment due to the same cause. Other forms of cranial distortion might be considered in detail. Enough has been said, however, in regard to the variety most apt to have serious consequences, and most frequently met in general practice, to indicate the importance of the subject, and the desirability of keeping it in mind at the critical period immediately following birth, during which prevention of these consequences may be possible. It is not the difficulty of management but the neglect of such cases that does the mischief. Very little mechanical ingenuity is requisite, provided that it be employed at the right time in accordance with the obvious indications in each case.

WAR ARTICLES.

NEWS OF THE WEEK.

THE following statistics recently published in a German exchange are interesting as showing the comparative heights required by the several nations in their soldiers: Germany, 1.54 meters (one meter equals 39.37 inches), 5 feet .63 inches; France, 1.54 meters, excepting the cuirassiers, who must measure from 1.70 (5 feet 7 inches) to 1.85 meters (6 feet .83 inches); Austro-Hungary, 1.55 meters (5 feet 1 inch); Russia, 1.54; Switzerland, Belgium, and Holland, 1.55; Sweden, 1.608 (5 feet 3.3 inches); United States, 1.619 (5 feet 3.74 inches), and England, which has the highest minimum standard, namely, 1.65 meters (5 feet 5 inches). As a matter of fact, the great majority of recruits in the English army actually measure 1.68 meters (5 feet 6 inches).

The prospects for a plentiful supply of pure water at Camp Thomas are excellent. A large force of men has been put to work laying a pipe-line from Chickamauga creek, and another from Crawfish Springs, to the camp. An immense engine and pump are already in working order, and the supply of water will be ample for every need. The men at Chickamauga are in excellent condition, and improvements in the sanitary condition of the several camps are progressing favorably.

Plenty of hard work, drilling and exercise, but good health, good spirits, and good sanitary conditions is the gist of the report from the 71st Regiment of New York Volunteers encamped at Lakeland, Florida. Several men have succumbed to the heat during drills, but all quickly recovered, and the

regiment is rapidly becoming acclimated. Colonel Greene has prohibited board floors in the tents as out of consonance with serious campaigning, a regulation which opens up a question of hygiene, and the possibilities of a course of toughening to the inexperienced civilian. It seems doubtful whether in a country like Florida a man can accustom himself to sleeping on the damp earth in a heavy moist night atmosphere richly laden with an extensive and varied collection of malarial germs. Even the "crackers" who take their daily ration of "chills" or "ague" as one of the regular conditions of life do not sleep on the ground, and the risk of implanting seeds of disease in our troops to ripen and bear fruit under the climatic influence of Cuba would seem to be too great to hazard for the sake of military ethics. The adoption of the hammock is a long step in the right direction.

Nearly ten thousand men are encamped at Falls Church, Va. This is known as Camp Alger, and the conditions here are not so favorable as at any of the other camps. We quote from the daily press:

It is doubtful if clearer grounds for complaint could be afforded than those which exist at this camp, whose natural facilities are not sufficient to meet the wants of one regiment, let alone a full army corps. The volunteer officers, all of whom have had experience in camp life and in the selection of camps, cannot understand why this particular site was selected when there are other points where the two great needs of a camp—water and fuel—are in abundance, and where transportation is not a matter of mule-killing over muddy country roads. The commissary arrangements have been inadequate, and the volunteers are being subjected to a rigorous hunger drill. It is suggested that they will be prepared for any hardship that Cuba or the Philippines may offer after a tour of duty on the desert plains near Falls Church.

Owing to the inadequate water-supply, some alarm is felt that typhoid fever may gain a foothold. Two cases, one fatal, already have made their appearance, and strenuous efforts are being put forth to avoid its spread.

At the suggestion of General Wesley Merritt the War Department has detailed the following officers of the Medical Department to duty in the Philippines: Colonel Henry Lippincott, who has been on duty at Fort Sheridan, Ill.; Captains William O. Owen, who has been on duty at Fort Bayard, N. M., and E. R. Morris, who has been on duty at Fort Spokane, Wash., and Lieutenant Henry Page, who has been on duty in Washington.

A meeting of Cuban physicians was held at the Red Cross Hospital, New York City, on May 22d, to discuss the effects of climatic diseases in Cuba. Those who took active part in the discussion were Dr. Morrill of the Hospital of the Holy Virgin, Havana,

Dr. Riviere of Havana, Dr. Munoz, recently chief of the Civil Hospital in Havana, Dr. Sollosso, until recently surgeon in the Spanish army, and Drs. Carvona and Lesser. The points determined were that men from the United States suffer more from disease in Cuba than men from Southern countries. Of the Spanish soldiers who have gone to Cuba seventy-five per cent. have suffered from malaria and twenty-five per cent. from yellow fever. Deaths have occurred in about twenty-five per cent. of the cases. The seriousness of the diseases in Cuba has depended on the seasons and location; malaria has prevailed during the entire year, and yellow fever only during the months of August, September, October, and November. Yellow fever prevails mostly on the coast and in the cities. At a distance of eight to ten miles from the coast and in the mountains the island is healthy during the entire year. The physicians came to the conclusion from their observations that diseases do not spread as rapidly, nor are they as severe, as on the southern coast of Florida.

Actual experience and statistical records show beyond question that disease is more disastrous to an army than the enemy's bullets, and hygienic rules and conditions, and medical and surgical equipment, are quite as essential as ammunition, arms, forts, and tactics. During the recent Greek war, Turkey lost about 1000 men in battle, 19,000 died of disease, and 22,000 were sent home invalided. Of the latter 8000 subsequently died.

Although it was positively announced at the beginning of the war that women nurses would not be enlisted in either the army or the navy, the plans have been changed, and for the first time in the history of this country women are being enlisted into military service as nurses. Dr. Anita Newcomb McGee of Washington has just been charged with the selection of all of the women nurses for the Government during the present conflict. There were women nurses during the Civil War, but they were not enlisted, being paid by the Sanitary Commission. By the present plan, applicants must be between the ages of thirty and fifty; they must be graduates of reputable training-schools, and preferably with practical experience and without family ties. They must be strong and healthy; surgical nurses are in much the greater demand. They will receive \$30 per month, wear a uniform consisting of white dress, cap and apron, and a badge in the form of a red cross of enamel, surrounded by a circle of blue enamel. In addition to their pay, each nurse will receive her rations daily, and lodg-

ing when practicable. There is a great demand for nurses who are immune to yellow fever, but so far not one has applied. No women nurses will be sent to Cuba, neither will any be permitted aboard the naval vessels.

Dr. Walter Wyman, Supervising Surgeon-General of the Marine Hospital Service, has notified the medical officers of the service that the United States Marine Hospitals are available for the reception of the sick and wounded of either the army or the navy, and that they are directed, upon a written request of the proper military or naval authority, to receive and care for said patients, the Marine Hospital Service to be reimbursed the actual cost of maintenance.

THE EFFECT OF THE EXPLOSION OF A SHELL.

BY RAYMOND SPEAR, M.D.,
ASSISTANT SURGEON, UNITED STATES NAVY, ON BOARD FLAGSHIP
"NEW YORK."

DURING the bombardment of San Juan de Puerto Rico on May 12th, the U. S. S. "New York" was struck once by a 14 cm. shell at a distance of about 5500 yards. The shell came over the stern of the ship and struck an iron stanchion three inches in thickness which was broken short off at the point of contact. The shell went on for a distance of about fifteen feet and exploded in a wooden boat which was covered with canvas. The boat was demolished, the lighter planking being badly splintered and driven downward and forward against an iron steam-winch. The oars in the boat were broken and one piece was driven forward along the spar deck but did no damage. The canvas covering the boat was torn and rent into shreds by the force of the explosion and by splinters passing through it and then caught fire, showing that canvas under such conditions will not stop splinters.

The shell itself burst into many pieces varying from the size of a pea to large pieces weighing about five pounds. The direction these fragments took was forward, downward, upward, and to both sides, many of them going over the ship's side, others passing through the copper ventilators and smoke-pipes and doing but little damage.

The fragments that went downward and forward struck about the port 8-inch waist gun, where there were twelve men stationed, killing one man and injuring several others. The man killed, Wiedemark, was struck by a piece of shell about two inches square by one inch thick. It entered the left side of his neck near the angle of the jaw, severed the blood-vessels, proceeded upward and backward into his brain, probably injuring the medulla, and lodged under the skin just beneath the occipital protuber-

ance. The man fell forward, losing consciousness immediately. His respiration ceased as soon as he was struck, but his heart continued to beat feebly for about five minutes, when all signs of life disappeared.

Another fragment of shell of about the same size struck a man named Fettman on the anterior inner surface of the left thigh about three inches above the knee and went through the limb, taking a backward and downward course. The femur was shattered into numerous fragments and the muscles were torn considerably in the track of the wound. The effect of the missile on the bone was peculiar in that the bone was not only splintered for about three inches of its length but it was also pulverized, hundreds of minute pieces of bone being embedded in the muscles. The wound of entrance was smaller than the wound of exit, the piece of shell probably entering the thigh edgewise, turning and presenting a flat surface at the point of exit. At this point there were shreds of tissue protruding from the wound showing that the ragged piece of steel drew muscular fibers and fascia along with it. The leg was operated on and a portion of the femur resected, the splinters and crumbs of bone were removed, the fragments were trimmed off and wired together, and through-and-through drainage established, the limb being put up in a fenestrated plaster-dressing. The man was transferred to the Hospital Ship "Solace" two days after the operation and is now in the hospital at Key West. The wound at last accounts was healing by primary union and there is every reason to believe that the leg will be saved.

Another man was struck in the left leg by a piece of shell about 1 in. x $\frac{1}{2}$ in. x $\frac{1}{2}$ in. It entered the leg about its middle on the outer side, went inward and forward, grooving the anterior surface of the tibia. The fragments of bone were taken out of the leg by the piece of shell.

There were several other minor injuries. Pieces of shell struck several men but did no damage. One man felt something hot on his breast and investigating found a small piece of shell that had burned its way through his clothing and reached his skin. There were a few contusions due to flying splinters, but no serious injury from this source. The fragments of the shell were all hot, as was shown by burnt wood and canvas. The men injured by the shell all said they felt a burning, stinging sensation about their wounds, and in some cases the clothing was scorched.

The shell receives a great deal of heat from the friction it incurs in leaving the gun; some of this heat is lost through radiation in its flight through the air, more heat is developed on the impact of the shell, and still more energy takes the form of heat

when the missile explodes, making the fragments hot enough to set fire to wood. All of the wounds made by the pieces of shell were aseptic, but they all were sluggish in healing, due to the lowered vitality and burning of the injured parts.

EXTRACT FROM THE LOG OF THE AMBULANCE SHIP "SOLACE."

[From our Special Correspondent.]

We left Norfolk early in May and after touching at Key West, joined Admiral Sampson's fleet and accompanied it in its cruise to Puerto Rico. The "Solace" was in attendance upon the fleet at the bombardment of San Juan where, directly after the engagement, we took on board the wounded and cared for them. The casualties in the bombardment consisted of one man killed and five wounded. The injuries received were all produced by the fragments of bursting shells, except in the case of one man who received a lacerated and contused wound of the back produced by a splinter from one of the steel girders. The fatal injury was caused by a fragment of shell which passed directly through the sailor's head from side to side, producing almost instant death. Another fragment of the same shell struck another man producing a compound comminuted fracture of the femur; the third man received a flesh wound only. These casualties happened on board the flag-ship "New York."

The "Iowa" was the only other ship that was struck during the engagement. The fourth man was wounded by a fragment of a shell which entered the ship's superstructure and burst. It carried away the bones entering into the formation of the right elbow-joint. The fifth man received a slight wound of the foot. The wounded were all attended by the surgeons of their respective ships, the effort being made in all instances to save the parts.

At the present time, May 20th, the patients are all doing well, with the prospect of a successful outcome of the treatment. The "Solace" returned with the fleet to Key West and transferred the patients to the well-equipped hospital on shore, which is conducted by the Medical Department of the army.

SANITARY ORGANIZATION, REPORT OF SICK AND WOUNDED, AND ROSTER OF MEDICAL OFFICERS IN THE VICINITY OF CAMP TAMPA HEIGHTS.

[Special Correspondence of THE MEDICAL NEWS.]

CAMP TAMPA HEIGHTS, TAMPA, FLORIDA, }
May 26, 1898. }

THE following circular has been issued from the office of the chief surgeon in reference to our medical organization in the field:

"For the purpose of efficient administration of the medical department of this division the senior surgeon of each brigade will be considered its chief surgeon. Except under conditions of urgency, he will be the usual medium of communication of orders to the regimental medical officers, and he will have a general supervision of the enforcement of the orders of the chief surgeon of division which pertain to the medical department. Under direction of the chief surgeon of the division, the brigade surgeons will act as medical inspectors and will advise him upon all matters which pertain to the health of the commands or the efficiency of the department.

"All monthly or special sanitary reports will be transmitted through brigade surgeons, and will receive their consideration before they are sent to the chief surgeon."

Regimental surgeons are required to submit semi-weekly reports of sick and wounded promptly after sick call on Wednesday and Sunday mornings, covering the following points: Numerical summary of cases under treatment at last report; admitted to sick report; returned to duty; died; discharged, and those remaining at date of report; also, general character of diseases and condition of camp sanitation, with remarks.

There are now thirty-one medical officers, commissioned and contract, in the field with the United States forces at this point and quite an additional number are expected to join soon. The following is a roster of commissioned medical officers and acting assistant-surgeons attached to the United States forces in the vicinity of Tampa, and their respective assignments:

Major B. F. Pope, chief surgeon, United States forces; Major H. S. Kilbourne, chief surgeon, Infantry Division; Major L. A. LaGarde, chief surgeon, Cavalry and Artillery Division; Major A. H. Appel, commanding division field hospital, Infantry Division; Major S. Q. Robinson, brigade surgeon, 1st Brigade, Infantry Division; Major R. J. Ebert, brigade surgeon, 2d Brigade, Infantry Division; Captain Wm. Stephenson, assistant surgeon, in charge 4th U. S. Infantry; Captain C. M. Gaudy, assistant surgeon, in charge 1st U. S. Infantry; Captain Jas. E. Pilcher, assistant surgeon, in charge 22d U. S. Infantry; Captain W. D. McCaw, assistant surgeon, in charge 6th U. S. Infantry, and division ambulance surgeon; Captain Henry I. Raymond, assistant surgeon, in charge 13th U. S. Infantry; Captain H. T. S. Harris, assistant surgeon, in charge 9th U. S. Cavalry; Captain Paul Shillock, assistant surgeon, in charge 25th U. S. Infantry; Captain E. B. Frick, assistant surgeon, in charge Lt. Bat. "F," 3d U. S. Artillery; Captain A. M. Smith, assistant surgeon,

in charge Lt. Bat. "D," 5th U. S. Artillery; Captain M. W. Ireland, assistant surgeon, in charge Lt. Bat. "C," 3d U. S. Artillery; Captain Henry C. Fisher, assistant surgeon, in charge 21st U. S. Infantry; Captain Henry A. Shaw, assistant to division field-hospital surgeon, Artillery and Cavalry Division; Captain Robert S. Woodson, assistant to division field-hospital surgeon, Infantry Division; 1st Lieut. Edw. L. Munson, assistant surgeon, in charge Lt. Bat. "F," 2nd U. S. Artillery; 1st Lieut. J. M. Kennedy, assistant surgeon, in charge, Lt. Bat. "E," 1st U. S. Artillery; 1st Lieut. Guy C. M. Godfrey, assistant surgeon, in charge Lt. Bat. "K," 5th U. S. Artillery; 1st Lieut. W. W. Quinton, assistant surgeon, in charge Lt. Bat. "A," 2nd U. S. Artillery; 1st Lieut. Doane C. Howard, assistant surgeon, in charge 9th U. S. Infantry; 1st Lieut. Wm. H. Wilson, assistant surgeon, in charge 1st U. S. Artillery; 1st Lieut. Thos. J. Kirkpatrick, Jr., assistant surgeon, in charge 24th U. S. Infantry; Dr. John Guiteras, acting assistant surgeon, on special duty with chief surgeon, U. S. forces; Dr. W. E. Parker, acting assistant surgeon, assistant to division field-hospital surgeon, Infantry division; Dr. H. W. Danforth, acting assistant surgeon, on duty with 9th U. S. Cavalry; Dr. W. W. Calhoun, acting assistant surgeon, on duty with 4th U. S. Infantry; Dr. B. C. Leonarde, acting assisting surgeon, on duty with 17th Infantry; Dr. J. Lawrence, acting assistant surgeon, on duty with Lt. Bat. "B," 4th U. S. Artillery.

I have tabulated a consolidated report of sick and wounded of the United States forces near Tampa, *i. e.*, at Camp Tampa Heights, Picnic Island, and Port Tampa, for the last ten days of April, being the first ten days that the troops were in camp, and I find that disorders of the gastro-intestinal tract largely predominate. Assistant-Surgeon Fisher reports thirty-seven cases of acute diarrhea in the 21st Regiment, and as to their causation he justly remarks: "The prevalence of diarrhea is attributed to the great difference in temperature between the days and nights. The days were excessively hot, while some nights the thermometer fell below 50° F., and the men became chilled; also, to the use of iced drinks while heated, and to indiscretions in dietary."

Only seven cases of heat exhaustion were reported from all the regiments. Some of these cases occurred during noon (1 P.M.) drills, which were prudently discontinued after a short trial, and active work of all kinds largely suspended between ten and four in the day. One case of croupous pneumonia occurred in my own regiment. The local health physician tells me that this disease is so infrequent in this locality that he has seen but three or four

cases in eight-years' practice. The patient did admirably in a hospital tent with free ventilation, and very little medication was required.

One case of measles has broken out in camp, but the patient was promptly isolated, and no second case has occurred. Should the infection spread it might work havoc among the young recruits, as was the case in the Sixties. Only four cases of acute alcoholism are recorded. It would appear that the men already begin to realize that alcohol must be avoided if effective campaigning is to be carried on under a tropical sun.

Four cases of vaccinia are reported. Several hundred vaccinations have been performed in the field, aside from many that were practised upon the troops before leaving their respective posts. The virus, contained in hermetically-sealed tubes (Sternberg's), has given such a large percentage of successes in persons not vaccinated for five years previously, that I feel confident a person in whom it does not "take" is already immune.

Three gunshot wounds and one saber thrust are reported, all probably accidental and without fatality. The first semiweekly medical returns show fifty-four cases of sickness among nearly 5000 men; only a little more than one per cent. non-effective, a very gratifying condition of affairs.

Since the publication of my letter on "The Medical Organization of the United States Forces at Tampa," some modifications in the general plan therein outlined have been made leaning toward the fuller equipment of the regimental hospital organization, so as to allow each regimental surgeon a personnel consisting of at least three privates and one acting hospital steward, and an allotment of one red-cross ambulance with two horses, one hospital tent, and one wall-tent.

In view, also, of our immediate embarkation for Cuba, there has been issued to each regimental surgeon one field surgical box containing the following named articles, specially selected and packed under lock and key for this campaign: Schering's sterilizer, lamp, etc., 1; rubber gloves, 4 pairs; rubber envelopes, 2; finger-cots, assorted sizes, 2 dozen; rubber aprons, 2; green soap, 2 pounds; Halsted's rubber cylinders, 4; gauze bandages, three sizes, 300; gauze sublimated bandages, one meter long, 300; absorbent cotton, in one-ounce packages, 150; iodoform gauze, one-half meter length, 50; catgut ligatures, three sizes, 150; silk ligatures, strands, 150; rubber irrigation-bags, 2; compressed sponges, cotton, 24 dozen. Each box, with its contents, weighs 140 pounds.

HENRY I. RAYMOND,
Captain and Assistant Surgeon, United States Army.

ARMY LIFE IN 1861-1865.¹

BY PROFESSOR HENRY P. BOWDITCH, M.D.,
OF HARVARD UNIVERSITY.

THOSE of us who, in 1861, saw how the sons of Harvard sprang to arms at their country's call little thought that they would live to witness a repetition of the call and the response. For months we had watched the heavy war cloud gather on the Southern horizon as one State after another strove to pluck its star from our Nation's banner. Gloom and doubt filled every breast. The condition of the country was of course the one theme of conversation in every group of students, and many men who afterward fought well for their country did not at this time hesitate to express their conviction that "if the whole South wanted to secede we should have to let them go." This condition of uncertainty grew daily more and more intolerable, till at last, in the words of the Phi Beta Kappa poet of that year,

" . . . a red flash like lightning across the darkness broke
And with a voice that shook the land the guns of Sumter spoke."

How the men of Harvard replied to that voice this
steadily building rose to bear witness.

And now Harvard may be called upon to arm herself again for battle, but under very different conditions. There has been no insult to our flag demanding instant atonement in blood. We are engaged in a war in which our part may perhaps be best described as that of ministers of fate charged with the duty of exacting from Spain the penalty of her four centuries of misrule, oppression, and cruelty. Let us see to it that we perform this function with dignity and self-restraint. Though the call for troops is not yet so urgent as to make every Harvard man feel, as he felt in 1861, that he must be able to show good cause if he fails to don the uniform, yet it may well happen that in the progress of hostilities complications with other Powers may arise, and that the war power of the Nation may be taxed to the utmost. In view of the possibility that our country may require the services of all her loyal sons, it is well for the present generation of Harvard men to take counsel with their older brethren to see if perchance the experience of a former generation may contain useful lessons for those who are about to undertake the unfamiliar duties of the soldier.

The class which will graduate next month stands in the same relation to the war with Spain as the class to which I belong stood to the War of Secession. That is, the members of the class who enter the service of the country will pass directly from academic to military occupations, and the figures of the student and the warrior decorating the window of the class of 1861 in the neighboring hall will seem to be as appropriate for the class of 1898 as for the class which placed the window in position.

Since those of you who pass at once from the college to the camp will have no preparation for army life except

that which the university affords, it seems to me important to inquire how far an academic training may fit a student for a military life. In other words, what advantages, if any, does a college-bred man, entering the army or navy, have over a man who has not been trained in college halls? In the first place we like to think that Harvard men are so much in the habit of striving for high ideals that their conduct in the field will be guided by the noblest of motives; that they will not take up the calling of the soldier from a mere love of adventure, or from a restless desire for a change, but from a profound conviction that war, while it should always be the last argument to which nations resort, must, in order that it may not fail to carry conviction, be urged with all the power which the contestants have at their disposal.

In the second place, it seems to me that a very obvious advantage possessed by the college man is the power of rapidly acquiring and practically utilizing the information contained in books. It was a matter of common observation in the army that men of considerable intelligence, but without a liberal education, often had a good deal of difficulty in understanding a military movement from a printed description of it, although, when it had once been shown on the field, it was grasped and retained in all its details. It was this power, in the early days of the war when officers and men were alike ignorant of their duties, which enabled the young college-bred lieutenants to read up their tactics in the morning and drill their men in the afternoon. This, of course, is not to be regarded as the most desirable way of securing a well-drilled army, but when an army had to be improvised in the shortest possible time, the faculties of students trained in cramming for examinations served an excellent purpose.

There is one other inestimable advantage which you young men will have in entering upon a military career, and that is the advantage of youth. Youth is not troubled with misgivings. Doubts come with age. You will not shrink from any responsibility which you are ordered to assume from a doubt about your ability to perform the task. I have often thought that if I had been asked at any time during the last twenty years to take command of troops or execute military orders, as I did unhesitatingly before I was twenty-five years old, I should have felt and perhaps said, "This is no work for me. I have had no experience which will justify me in assuming such a responsibility."

Fortunately for the country no such feelings entered the minds of the young men who fought in the war of 1861. If they had stopped to think whether they were fitted for their task the war would never have been fought. You too, if you enter your country's service will assume your new duties with the same feeling of confidence that the end will justify your efforts, thus furnishing an illustration of a lesson which, if I mistake not, you have all learned from your professor in psychology, *vis.*, that an absolute faith in one's own power to accomplish a given result is an important, perhaps the most important, factor in determining the result itself. Let us trust that your individual experiences will conclusively demonstrate this principle.

¹ Professor Bowditch, who was a cavalry officer during the Civil War, recently gave a "war talk" at Sander's Theater, Cambridge, before the students of Harvard University. Through his courtesy the MEDICAL NEWS is enabled to publish the accompanying short abstract of his remarks.

MEDICAL PROGRESS.

The Incubation Period of Malaria Experimentally Lengthened.—CELLI and SANTORINI (*Fortschr. der Med.*, January 15, 1898), by rendering animals somewhat immune with malarial parasites, and by taking their serum and injecting it into patients before inoculation, have been able to delay the period of incubation of the parasites from an average of thirteen days to an average of twenty-five days; that is to say, the incubation period has been doubled. In autumnal fever the incubation period has been found to range from two to five days, the mean being three days. Men who were treated with serum of immunized animals, and afterward infected with malarial poison, were found to have an incubation period ranging from six to seventeen days, but the investigators were not able to prevent altogether the infection by this method of treatment, even in a single case.

Advantage of Previous Castration in the Diagnosis of Stone in the Bladder.—HORWITZ (*Therap. Gaz.*, February 15, 1898) mentions four cases in which he was unable to make a diagnosis of stone in the bladder until the atrophy of the prostate gland which followed double castration enabled him to pass a stone-searcher and establish the diagnosis. The youngest of these four patients was sixty-two years old. All presented symptoms of cystitis, and in the most of them the existence of stone was strongly suspected. In every case the atrophy of the prostate was sufficient in from ten to fourteen days after castration to allow the passage of the stone-searcher. One of the stones was small and soft, and was crushed and washed out. In the other three patients a suprapubic cystotomy was performed, with complete success. It is interesting to note that an attempt was made in two of these cases by means of the Röntgen-rays to determine the presence of the stone, but without success. Horwitz has no hesitation in recommending this method of procedure to patients of advanced age with enlarged prostate glands where the symptoms point to the presence of a stone if the diagnosis cannot be determined by instrumentation.

Suture of an Artery.—BRIAU (*Echo Medical, Lyon*, March 15, 1898) succeeded in making a complete circular suture of the carotid artery in an animal. The wound healed and the continuity of the vessel was not interrupted. The wall of the vessel showed only small traces of the suture, and at the points where pressure had been applied so as to control the flow of blood there were slight white thrombi. The inner coats of the artery were approximated with great care, and the thread was kept out of its lumen in order not to form a starting-point for a thrombus.

Dangers of Ligating the Axillary Artery.—SOUPART (*Belgique Médicale*, March 24, 1898), in commenting upon an instance of gangrene of the arm following ligation of the axillary artery, says that the ligation of this vessel between the subscapular branch and deep humeral ought to be proscribed in surgery, except in those cases in which an irregular arrangement of its branches allows

the radial pulse to be felt after compression of the axillary at the point at which it is proposed to apply a ligature. Thus for axillary aneurism the vessel has been successfully tied in the situation referred to. However, for all such troubles, it is both easier and safer, and equally successful, to tie the subclavian rather than the axillary artery.

THERAPEUTIC NOTES.

A Simple Method of Curing an Ingrowing Nail.—TARDIF (*Anjou Médicale*, February 1, 1898) says that he has been able to cure all cases of ingrowing nail, without recourse to the knife. He proceeds as follows: With a flat probe, or a match, he slips a bit of cotton between the edge of the nail and the inflamed flesh. Another strip of cotton is put along the outer margin of the ulcerated area, and the space between these two strips of cotton, and which is occupied by the ulcer, is thickly powdered with nitrate of lead. The whole is covered with cotton, and the toe is bandaged. The dressings are repeated the following day, and every day until the incarcerated edge of the nail is plainly visible. Usually four or five dressings suffice. Then with patience the edge of the nail is lifted away from the flesh and a bit of cotton is introduced under it, to keep it up. As it grows it will gradually take its proper position above the flesh, this having in the meantime shrunk and shriveled by reason of the applications of lead nitrate. The lead is to be discontinued as soon as it appears that the exuberance of the fleshy bed of the nail has been overcome. The difficulty seldom recurs. If this does happen it is necessary to repeat the treatment from the beginning.

Treatment of Diarrhea in Children by Sterilized Water.—MONGOUR (*Correspondens-Blatt f. Schweiz. Aerzte*, April, 1898) says that the intestines of infants suffering from gastro-enteritis contain in great numbers, and in a high degree of virulence, those bacteria which produce abnormal fermentations in the articles of food which they ingest. There are therefore two indications for treatment; first, to free the intestines as quickly as possible from the products of fermentation, and second, either to frequently change the contents, in which the bacteria develop, or else to keep these fluids in an aseptic condition. The first indication is secured by laxatives, but these cannot be many times repeated in the case of a weakened child. Asepsis of the intestine cannot with certainty be obtained. It is easy, however, to frequently renew the nourishment, although such children suffer more from lack of water than from lack of food. Moreover, water is one of the poorest media for the development of bacteria which it is safe to introduce into the stomach. The clinical results are in accord with this theory, and if a child is given from ten to twelve ounces of sterilized water daily vomiting will cease at once, diarrhea will soon disappear, and the temperature will fall so that in a relatively short time milk can again be given. Absolutely no medicine will be required. Mongour has obtained most brilliant results from this simple treatment.

THE MEDICAL NEWS.

A WEEKLY JOURNAL
OF MEDICAL SCIENCE.

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SATURDAY, JUNE 4, 1898.

**THE DENVER MEETING OF THE AMERICAN
MEDICAL ASSOCIATION.**

THE annual pilgrimage of the faithful has already begun, and the numerous pilgrims are now centering at Denver preparatory to laying their contributions upon the sacred altar of Science at that Sanitary Mecca of so many of the afflicted ones of this world. Not all of these pilgrims, however, are burdened with offerings; indeed, it is quite safe to say that a goodly proportion have left such burdens behind them, and are journeying thence in search of recreation, rest, and enjoyment. This, however, should be no reflection upon the character of the assembly, for the serious concerns of the doctor's life are so constantly with him that an annual excursion in which the chief motive is a change of air or social fellowship with his professional brethren, even though it has only the mildest flavor of scientific and professional work, is good for the doctor, and indirectly beneficial to the patients whom he has left at home.

There is every assurance that the Denver gathering will be strong in all the features that make up a successful meeting. Some fears have been expressed lest the president of the Association would be

detained and unable to be present, but General Sternberg has made provision for a brief absence from his pressing official duties, and announces that he will certainly be present for at least a part of the meeting. The programs of the various sections give promise of most instructive discussions, and the number and character of the men who will take part insure to the scientific features of the meeting a full measure of success.

The profession of Denver has been wide awake to the opportunity this meeting affords of giving the medical men from the various parts of the country who will assemble there, not only a bird's-eye view, but a quasi initiation into the elements of, the climate and soil that make Colorado the Mecca of health-resorts.

The Greater New York excursion train started on Thursday evening last, and by the time this notice reaches our readers will be approaching the end of its journey. A similar train has gone from Philadelphia, and the Chicago train, known as the Journal Train, is expected to leave Saturday night, June 4th.

The entertainment that has been provided at Denver by the local profession is most attractive, and the excursions into the mountains and to Colorado Springs and its vicinage will afford interesting diversion and prove restful to tired brains and nerves. No band of men and women can be happier or more jovial than doctors and their wives when thrown together in these annual outings. With the stimulus of Colorado air and scenes the customary exuberance will doubtless be overflowing.

The MEDICAL News has made arrangements for a prompt and complete report of this meeting, which will appear in the next issue.

**THE RECENT MEETING OF THE AMERICAN
NEUROLOGICAL ASSOCIATION.**

THE twenty-fifth annual meeting of the American Neurological Association, held at New York last week, was, both in point of attendance and in the scientific efforts that it called forth, the most successful in the annals of this important and vigorous society. Altogether forty-three communications were presented, many of which were of great practical importance, while others were genuinely scientific in the highest sense of the term.

Dr. Wm. Osler's paper on the combined symptoms of myxedema and Graves' disease, occurring without discernible cause in a young man, and leading quickly to a fatal issue, was one of the most interesting clinical contributions. The fact that symptoms of myxedema develop in patients who have suffered for a considerable time with Graves' disease is universally recognized, a number of such cases having been recorded; but the simultaneous development of these two diseases, which in causation, course, and pathogenesis seem to be antithetical, must be extremely rare. The report of such a case prompts one to think anew of the functions of the thyroid gland, which seems to stand in such important genetic relation to both of these diseases.

A disease whose clinical course and morbid anatomy received satisfactory explanation is one that is now known, perhaps temporarily, as amaurotic family idiocy. At the present time about thirty cases of this remarkable disease are on record, although but a few years have elapsed since it was first described. All writers on the disease are in accord concerning its occurrence solely in the Jewish race, its onset after birth, its progressive course characterized by idiocy and bodily decay, and its fatal termination in from a few months to a year or two after its onset. Heretofore the lesions constituting the basis of the disease have not been satisfactorily understood, but the communications on this subject by Drs. Hirsch and Holden go far toward filling this gap in our knowledge. The former demonstrated a large number of sections taken from different parts of the central nervous system, which showed very clearly that there was a slowly progressive widespread degeneration of the cerebrospinal system, like unto that caused by toxic agencies; a gradual destruction of the ganglion cells or parenchyma of the various components of the central nervous system. The latter investigator showed that changes exactly analogous occurred in an extra-cranial part of the brain: the retina. Dr. Holden's communication served also to emphasize the necessity of studying the retina in cases of nervous disease and of employing the same histological technic as that which had been of such signal service in unraveling the intricacies of neuropathology.

Of the purely scientific contributions one presented by Drs. B. Onuf and Joseph Collins, on the local-

ization of the sympathetic nerves in the cerebrospinal system, deserves especial mention. These investigators showed from experiments on cats, consisting of extirpation of different segments and ganglia of the sympathetic system, that the mesal and lateral portions of the gray matter of the spinal cord and corresponding parts of the oblongata are the seat of the sympathetic nerves. By using the Marchi and Nissl methods of staining they were able to follow the degenerations resulting from the extirpation of ganglia to certain groups of cells in the spinal cord, especially to one situated mesad and ventrad of the central canal, which they call the paracentral group, and to a lateral marginal group, and in the oblongata to the dorsal vagus nucleus. The importance of these researches bearing on many obscure questions in pathogenesis and symptomatology of nervous diseases, such as the occurrence of visceral symptoms and crises in tabes, pupillary, ocular, and trophic symptoms in syringomyelia, and in injuries of the spinal cord, as well as in clearing up many mooted points in connection with the physiology and symptomatology of the pneumogastric, was brought out in the paper and in the discussion which followed.

A paper on the morbid anatomy and the surgical treatment of the tic-douloureux by Drs. W. W. Keen and W. G. Spiller goes far toward answering the questions, How much can be expected from surgical treatment in this most intolerable of all diseases, and when should such treatment be resorted to. After Hartley, Krause, and other surgeons showed that the Gasserian ganglion could be successfully removed there was a decided tendency on the part of neurologists, both here and abroad, to recommend this measure to patients whose suffering resisted all other therapy, but the frightful mortality attending the operation, and the comparatively transient relief that it gave soon deterred them save in those few instances in which it was absolutely incumbent to adopt the most heroic measures to stay the sufferer from suicide.

Since then surgeons have been assiduously at work to perfect the details of the operation so that to-day the percentage of mortality is less than one-fourth, while the certainty with which all of the ganglion can be removed, and without great laceration, insures a large percentage of cures or pro-

tracted and acceptable amelioration. The authors concluded that the operation of extirpation of the ganglion should never be resorted to until every form of therapy, including peripheral operations of resection and exsection the fifth nerve, had failed. In this conclusion we heartily concur.

Many other noteworthy and most suggestive papers were read. Taking it altogether the neurologists have every reason to feel satisfied with this year's convocation.

NURSES FOR THE ARMY AND NAVY.

THE question of nurses for the wounded and sick of the Army and Navy is an extremely important one. At the present writing, when thousands of enlisted recruits and soldiers of the regular army have gone to the Philippines, and when we are apparently on the eve of throwing all our available forces into Cuba, the need for thoroughly trained and disciplined nurses subservient to the orders of the Surgeon-General is a pressing one. It is a matter of history, as well as of common experience, that death claims more victims through sickness, pestilence, and neglect, which always hover around an army, and particularly when in the tropics, than it does through the missiles of the enemy. Despite this, scarcely any provision has yet been made to combat the mortality arising from insufficient care and nursing of the sick and those not mortally wounded in the present conflict. We have been informed that the Surgeon-General of the Army purposed not to employ any female trained nurses during the campaign, yet we note that four female nurses have recently been engaged and sent to the Army Hospital at Key West. This is probably the beginning of a movement very propitious for the soldier and the sailor which will be looked upon with favor. There is no dearth of trained, graduate nurses in this country—in fact the supply during the past few years has been enormously in excess of the demand—who would willingly enter the service if given adequate remuneration. Their presence in the bays of hospital ships and in hospital camps would prove a most desirable addition.

It is regrettable that no provision exists for the training of nurses for our Army similar to that in vogue in England. Years ago, the English Government, recognizing how necessary it is to have the

assistance of capable women in caring for sick and wounded troops, established a training-school for female nurses in connection with the army hospitals and medical school at Netley. The work which these women have since done with Robert's soldiers in India and with Wolseley's in Egypt has received the highest praise and commendation and has more than justified their professional existence. In this country we have hospitals at Washington, West Point, and other places in connection with the Army where nurses could be properly trained and fitted to meet such emergencies as the one now upon us. Moreover, the Marine Hospital Service, which is to-day one of the most efficient departments of the Government, would be an ideal place for the preparation of such nurses. True it is that the Red Cross Society has for one of the purposes of its existence the furnishing of nurses both for the side of the friend and of the enemy, and no one can fail to appreciate the immense amount of good which this organization may encompass, but it would be ludicrous, if it were not so sad, to read the accounts in the daily papers of the young women who are volunteering to enter the society as nurses from all over the country, and who come to New York, and we presume to other cities, to receive a course of training of a week's duration, which they are deluded enough to believe will fit them for caring for the sick.

In many instances the instruction is given by physicians who have never seen a battle-field nor a hospital ship; and whose knowledge of many of the tropical diseases which the nurses are expected to combat, have been gained solely from text-books. Many of these volunteers are women of the finest spirit, animated by a desire to make the misery and suffering of their brothers who are defending the honor of their country less poignant, and whose patriotic sentiment is akin to a touch of the Divine wand. Others, however, are emotional and notoriety-seeking, who see in this an opportunity to add a new stimulus to their sentient souls and who enjoy the hysterical exaltation and enthusiasm of it all. In their imagery and highly colored dreams they see themselves clad in the robes of a sister of the Red Cross moving about a battle-field strewn with bleeding, dying, and agonized men, giving a word of comfort and solace to him whose life is ebbing, binding up the wounds and staunching the blood of him whose spirit is

struggling to open the golden gate, receiving a message of love for those at home from another who is already en route across the Stygian River; in short, they picture a realization of the inspiring, if conventional, picture of the ministering angel on the battle-field after the smoke has cleared away. But how different the realization. The nurse never sees the battle-field, except in rare instances. Her duty calls her to the hospital ward, at camp or on ship-board; there she is the physician's left hand, and oftentimes his right. To be the one, or both, cool-headed, non-emotional, properly trained, mature women are needed, and the surest way of getting them is to train them as every other Army servant is trained.

ECHOES AND NEWS.

The Problems of Charity.—The recent National Conference on Charities by one passing incident, served to punctuate the essential difficulty that attends all attempts at giving. Bishop Henry C. Potter did this in reminding his audience of the old-time epigram of Henry Ward Beecher that "The next worst thing to not helping a man is helping him."

Position of Women Physicians in Russia.—A decree has just been issued in Russia permitting women physicians to enter the Government service. By this fact women in Russia have won an important privilege. The Government service carries with it extremely liberal pensions. It is expected that this will be the forerunner of other extensions of privilege to women.

The Anatomy of the Drawing-Room.—Not long ago an officer died at a certain British military station. At an afternoon "at home" of one of the leading ladies on the station, the captain's death was mentioned, and the hostess who knew all about it, volunteered the information that he had died of disease of the kidneys, adding, with some unction and a little bashfulness, "how thankful we women ought to be that we have no kidneys."

The Medical College Laboratory Sues the University of the City of New York.—The Medical College Laboratory of the City of New York, which is in fact the former Medical Department of the University, has brought an action in the Supreme Court against the University to recover property which it recently conveyed to that Institution. The brief also attempts to enjoin the defendant, pending the suit, from disposing of the property or collecting the rents.

Army Surgeons Detailed as Delegates to the Denver Meeting.—The following named officers are detailed to represent the Medical Department of the Army at the annual meeting of the American Medical Association to be held in the City of Denver, Colorado, June 7 to 10, 1898: Lieutenant-

ant-Colonel Alfred A. Woodhull, deputy surgeon-general; Major Curtis E. Munn, surgeon.

Summer Recreation for New York Children.—Two of the large recreation-piers, extending about one-eighth of a mile into the moving currents of water and air on either side of the city have been opened to the public for the season. These piers are two stories in height, and each will afford spacious accommodations for from 10,000 to 12,000 women and children. The Association for Improving the Condition of the Poor will undertake this summer to ~~pay~~ all the expenses of managing fifteen public-school playgrounds as small parks for the people. The plan contemplates the use of the roof and basement playgrounds, the presence of kindergartners to direct the games of the children, and an adequate supply of clean sand in which the children may frolic.

Advance in Oral Instruction of the Deaf in Illinois.—Dr. J. C. Gordon, Superintendent of the Illinois Deaf and Dumb Institute at Jacksonville, reports progress in respect to the instruction for deaf and dumb in the State, and says: "A notable development in the past few years has been the advancement made in both the quality and the extent of oral instruction. The attitude of the State school toward the instruction of the deaf in speech and lip reading has always been liberal and progressive. Ten years ago nearly thirty-five per cent. of the pupils were receiving oral instruction. At present fifty-five per cent. are in the oral department, in which speech and lip reading are the ordinary means of communication, or are receiving special instruction in this art every school day."

Christian-Science Healing Invades England.—The Christian-Science lunacy is just now, invading England. Investigators are taking it in hand, but find difficulty in making much out of it as a real curative factor. There, as here, it is found to offend common sense, contravene human experience, and run counter to Infallible Writ. An English investigator of the States, in the *Westminster Gazette*, says that he "could extract no coherent scheme of teaching from the mystical negation of matter," and that the thing "certain about it" is that "fees are charged for the treatment, and persons initiated into the arena of scientific healing are required to pay \$100 for the same." If its money-making features were removed it would soon lose its charm and attraction for its professional advocates.

Dangerous Odors.—Berzelius, who discovered the element called "selenium," once tried the experiment of permitting a bubble of pure hydrogen selenide gas to enter his nostrils. For days afterward he was not able to smell strong ammonia, the olfactory nerves being temporarily paralyzed. Selenium gas has the odor of putrid horseradish. Tellurium is even worse. There is a story of a physician whose patient, a lady, refused to take an absolutely necessary rest because she was so fond of being always on the go in society. He gave her a pill containing a small quantity of tellurium, and her breath was affected by it to such an extent that she was not able to appear in public for a month. She never guessed what the trouble

was. The volatilized essential oil of roses is supposed to cause "rose cold." This peculiar complaint is so far nervous in its character that paper roses sometimes excite it.

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department, United States Army, from May 17, 1898, to May 23, 1898. Washington, D. C., May 26, 1898.—The following named officers of the Medical Department will proceed to San Francisco, Cal., and report for duty with the expedition to the Philippine Islands: Lieutenant-Colonel Henry Lippincott, deputy surgeon-general; Captain William O. Owen, assistant-surgeon; Captain Edward R. Morris, assistant-surgeon; 1st Lieutenant Henry Page, assistant surgeon. Acting Assistant-Surgeon Douglas F. Duval, U. S. Army, will proceed from this city to West Point, N. Y., and report for duty at the U. S. Military Academy. Acting Assistant-Surgeon S. Melville Waterhouse, U. S. Army, will proceed from this city to Fort Hamilton, N. Y., and report for duty at that station. Major William B. Davis, surgeon, is assigned to duty in charge of the general hospital at Fort Myer, Va., in addition to his duties as surgeon at that post. Acting Assistant-Surgeon David Baker, U. S. Army, will proceed from Walonville, Ill., to Fort Thomas, Ky., and report for duty in the general hospital at that place. Acting Assistant-Surgeon George H. Richardson, U. S. Army, will proceed from this city to San Francisco, Cal., and report in person to the Commanding General of the expedition to the Philippine Islands for duty. Acting Assistant-Surgeon Arthur Jordan, U. S. Army, will proceed from Richmond, Va., to Mobile, Ala., and report for duty with troops in the field at that place. Major William H. Corbusier, surgeon, is relieved from duty at Angel Island, Cal., and assigned to duty as acting medical-purveyor of the expedition to the Philippine Islands. Captain Charles B. Ewing, assistant-surgeon, will proceed at once to New Orleans, La., and report to the commanding officer, 5th Cavalry, for duty. Acting Assistant-Surgeon Frederick J. Combe, U. S. Army, will proceed from Brownsville, Tex., to Tampa, Fla., and report for duty with troops in the field at that place. Acting Assistant-Surgeon Clarence J. Manly, U. S. Army, will proceed from this city to Fort Thomas, Ky., and report for duty in the general hospital at that place. Acting Assistant-Surgeon Ira A. Shimer, U. S. Army, will proceed from this city to Fort Myer, Va., and report for duty in the general hospital at that place. A contract having been made with Dr. A. D. McArthur of Littleton, Col., for duty as acting assistant-surgeon at Fort Logan, Col., he will proceed to that post and report to the commanding officer for duty to relieve Acting Assistant-Surgeon Carroll E. Edson, whose contract is about to terminate.

CORRESPONDENCE.

AN IMPROVED METHOD OF TREATING IVY POISONING.

To the Editor of the MEDICAL NEWS.

DEAR SIR: With the advent of summer that very

annoying skin irritation resulting from exposure to the poison-ivy will make its appearance. Having been annoyed at the persistence of the dermatitis caused by it in spite of the use of medicated oils, ointments, and lotions, I was led during the summer of 1897 to use collodion (contractile) freely in such cases, with very gratifying results. The benefits derived from its use are the relief of itching, the cessation of the extension of the dermatitis, and the rapid subsidence of that which is already present.

The collodion should be freely applied when the diagnosis is first made and every inflamed patch and any isolated vesicles entirely covered, also to a slight extent the surrounding healthy skin. The result is that the inflamed parts are no longer exposed to the air and the itching and burning usually cease. The collodion contracting slightly, exerts some pressure on the inflammatory area and seems to squeeze the vesicles out of existence.

The patient should be directed to reapply the collodion whenever any cracking occurs in that already applied, and, indeed, to paint it over all the affected parts once or twice a day; also, to immediately cover any new patches that may appear. Used in this way without other treatment I have been enabled to cure this disease in from two to four days, the usual duration being from one to two weeks.

W. F. MARTIN, M.D.

COLORADO SPRINGS, COLO., May 25, 1898.

THE LIFE-INSURANCE COMPANY AND ITS ENCROACHMENT UPON PERSONAL RIGHTS.

To the Editor of the MEDICAL NEWS.

DEAR SIR: A number of idealists and enthusiasts designate the Life-Insurance Company a public benefactor, totally ignoring the important fact that it is a purely mercantile enterprise founded on business principles and intended to yield lucrative results. As a mercantile institution it has the right, nay, even the obligation, to protect itself and those already insured against possible loss. To accomplish this it adopts, as is perfectly right and proper, more or less stringent tests for those seeking admittance. Based on the same ground as that on which the business man refuses credit to a customer of doubtful standing, the Life-Insurance Company, considering it a financial undertaking, may exert its right to reject habitually those applicants whose family records from a medical standpoint are deficient, whose renal excretions present so-called abnormal constituents (even if they be without specific significance), and may debar from admittance those who are laboring under certain systemic conditions, inherited or acquired, or are afflicted with well-defined diseases, no matter of how comparatively innocent a nature these affections may be. In short, the Life-Insurance Company may be justified in adopting such conservative methods as will secure profitable results, and in regard to the rules it has laid down, though they may seem ever so preposterous, there is no contention.

If a life-insurance institution demands a rigid physical

examination of the applicant it is the duty of the examiner to make it as thorough and complete as possible, both in justice to the applicant and to the company, and the benefit of a reasonable doubt should be extended to the latter.

But is the examination as to the physical condition of the applicant a thorough and trustworthy one in every case? Does it not frequently decree against the applicant in an arbitrary manner? A number of instances have been brought to my notice in which the company's physician caused the rejection of the applicant on account of the apparent occurrence of dextrose in the urine. Now it seems to me that an experienced and careful examiner cannot possibly mistake the presence of a certain urinary constituent for glucose; if he does, he is either a novice in the profession or else extremely careless, and such a physician is in no way qualified to be an examiner of life-insurance applicants.

A competent and careful examiner is acquainted with and guards against the inaccuracies and insufficiencies of certain methods in the detection of dextrose. He knows that other bodies may occur in the urine besides glucose which possess the power of reducing copper compounds. He is aware of the fact when applying one of the copper tests (still the most common tests in vogue) that a number of normal urinary constituents, especially when they occur in excessive amounts as uric acid, the urates, creatinine, hippuric acid, and hypoxanthine may bring about a similar reduction of the copper solutions as does dextrose, and that a variety of abnormal urinary bodies as indican and alkaptone, and some alkaloids, and tannin, gallic acid, pyrogallo, camphor, copaiba, cubeb, and also some other carbohydrates possess analogous copper-reducing properties. Moreover, the painstaking and conscientious examiner will never omit to apply control-tests when he makes use of one or the other copper solution, and he will never fail to employ two or more testing methods when the presence of glucose or any other abnormal constituent is suspected.

A colleague, aged forty-five years, of good physique, good family history, and good habits, applied for life insurance in one of our companies. He was rejected on account of "diabetes." Numerous examinations of his urine did not reveal to me any glucose, nor does his general condition warrant the assumption of a glycosuric or diabetic state. The applicant himself was and still is in the habit of examining his urine from time to time, and as yet has never detected any grape sugar or any other abnormal constituent. The "inefficient examiner" was evidently mistaken and negligent. Possibly his Fehling's solution had deteriorated; possibly the few pieces of chemical apparatus used were not previously thoroughly cleaned. No matter what caused the apparent copper reduction, it was this official's duty to apply at least one control-test to ascertain the presence of glucose. Had he done so, the rejection of the applicant on account of "diabetes" could not have occurred. I have selected this case from a number of others which I have in mind as it occurred recently, and as the applicant is a well-informed, conscientious and trustworthy physician.

The insurance companies—among themselves—have established some kind of a bureau of information for mutual protection. The data as to the physical condition of a rejected applicant are cheerfully transmitted from the medical director of one company to that of another, who, when called upon, will return this favor. In other words, *the insurance companies have combined to form a trust—if I may so term it—to effect the exclusion of certain applicants.*

The cited case will illustrate how unreliable the data as to the state of health of an applicant may occasionally be. Thus a reasonably healthy man may be debarred from obtaining *any* life insurance. The companies will ostracize him because at some possibly remote period an incompetent examiner alleged to have found diabetic sugar or another abnormal urinary constituent. True, the company may grant a subsequent examination to the applicant after some months have elapsed, and the applicant may present himself for such an examination at the "home office," but is it not remarkable that in the rarest instances the second examination reverses the unfavorable verdict of the first?

Furthermore, it may even occur at times that the medical director of one company will ignore the report of the same officer of another institution as to the bodily condition of an applicant, but how often will the medical chief of the average company be unbiased enough to overlook a previous examination made for another association which proved disadvantageous to the applicant?

Under these existing conditions there seems to be an urgent necessity of reform. Is it not the duty of the governments of the different States in which the life-insurance companies are transacting business to ameliorate this unjust state of affairs? Is it not the duty of the government of the State to protect the individual interests of the inhabitants? While one company has a perfect right to reject a candidate who is unsound, it has no authority whatsoever to communicate and circulate the information privately obtained under the supposed seal of professional secrecy. Do the physicians who are connected with the insurance companies deem themselves not subject to the laws of propriety observed by the other members of the medical profession?

Most States, if not all, have a department of insurance. The Superintendent of Insurance of the State of New York acts as a general public overseer of the whole insurance system. But while the Insurance Department thus protects the *insured*, it does not protect the *insurable* public from the encroachments of the companies. In this connection the people may demand: (1) That the Insurance Department of every State create a special medical board to supervise the medical departments of the life-insurance companies, and to examine and license physicians who wish to devote themselves to life-insurance work. (2) That the medical departments of the insurance companies shall be forbidden to communicate to each other any knowledge as to the physical condition of an applicant obtained by and from an examination of the same; that such a communication shall be considered a breach of a privileged communication; that it shall be

deemed a conspiracy between the insurance companies in thus imparting and receiving such communication, and be punishable as such.

The following propositions, were they constitutionally authorized, would still more assist the advocated cause: (a) That each and every insurance company file an authoritative statement with the State Department of Insurance setting forth its classes of insurance, its standards and limits for the acceptance of an applicant. (b) That the State Department of Insurance may deputize one or more physicians to inquire into the state of health of a rejected applicant, provided the same applies to the department on a prescribed formula, signed by two reputable practitioners of medicine, who state why an official examination should be made. (c) That the insurance companies be compelled to insure the applicant if the medical examination ordered by the Department of Insurance pronounce the same eligible, and that he shall enter that class of insurance for which he is conditionally (a) qualified.

HEINRICH STERN, M.D.

NEW YORK, May 16, 1898.

OUR FOREIGN LETTER.

[From our Special Correspondent.]

BEHRING AND THE TUBERCLE TOXIN—BEHRING'S NEW LABORATORY—DIPHTHERIA SERUM AT HOCHST—TETANUS AND THE TETANO-ANTITOXIN IN NERVOUS TISSUE—THE UNIVERSITY CLINICS AT MARBURG.

MARBURG, Germany, May 21, 1898.

THE political press had said so much of Behring's communication to the Congress of Hygiene in Madrid as to a cure for tuberculosis that I was naturally anxious to hear definitely what there was in it. That there was a great deal of exaggeration in the popular reports I felt sure. Daily newspapers are all very well in their way, but when it comes to war news and medical, especially therapeutic, discoveries, it is advisable to wait to hear what they say next day or next week before putting too much faith in to-day's announcements.

Professor Behring himself proved ready to say what the drift of his recent communication had been. Its first formal appearance in print will be in French, the manuscript immediately after translation to be given to the *Deutsche Medicinische Wochenschrift*. He is, of course, not at all pleased that the political press has given the idea publicity that he has discovered a new antitoxic serum or tuberculin for tuberculosis. He has even thought it advisable to make a formal public correction of such reports in the *Temps*, one of the most prominent of the Parisian newspapers.

His paper at Madrid merely discussed the results of the experiments that he has been carrying on at Marburg for some time with the toxins of tuberculosis. He has found that there is a series of toxic substances produced by the growth of tubercle bacilli in cultures. One of these at least he has been able to segregate, and he finds that it possesses a toxic power at least one hundred times as great as that of Koch's old tuberculin. Observations with this on the smaller animals are almost hopelessly unsatis-

factory owing to the fact that a fatal issue so often enters into the experiments. On the larger animals, however, Behring has found that the reaction so faithfully sought for by Koch in his experiments with the old and the new tuberculin is produced by this new and powerful agent. In the blood of cattle infected with tuberculosis and then injected with this tubercle toxin a very striking therapeutic effect is produced. Whether this effect consists in the production of certain sozalumins, an antitoxin for the animal itself, or whether it is a cell-stimulus that arouses tissues to new resistive vitality is not clear. It is sure, however, that cattle seemingly hopelessly infected with tuberculosis have been cured by careful injections of the remedy. Further experiments are to be made on cattle at the Veterinary School in Berlin and the remedy will be thoroughly tested before its use is commended even to veterinarians. There is no question as yet of its application to human therapeutics. So much says Professor Behring himself, who is extremely modest and states absolutely only the results of actual observations. Professor Loeffler, who was at Madrid and took part in the discussion of the subject, expresses his sincere conviction that there is in these experiments with tubercle toxin the germ of even a greater discovery for therapeutics than diphtheria serum has proved to be. Koch and Behring have both been so fascinated by therapeutic results in animals that their results must be undisputed. Both are too acute observers, too well disciplined, in the school of control-experiments to be deceived by a series of mere coincidences. Professor Loeffler expresses the opinion, too, that the return of Professor Koch will see a revulsion of opinion with regard to the new tuberculin R., the manufacture of which, despite reports to that effect, has not been given up.

As to the question of an antitoxin for tuberculosis on the principle of the diphtheria antitoxin Professor Behring expressed himself as very doubtful of any such thing being possible last year during a visit to Paris. Further experiments have confirmed this view. All of the mammalia practically have been experimented upon for the purpose and none produce antitoxic substances in quantities that would make their serum available therapeutically for others affected by the disease. The therapeutic reaction must, it would seem, take place in the circulation of the tuberculous themselves; no part of this reaction can be accomplished by proxy. This opinion is not absolute because it is possible that birds may yet furnish some surprises in the matter. Their reaction to their own form of the disease—aviary tuberculosis—has been carefully observed. Whether future observers will find the identity of the infections, human and aviary tuberculosis, at present a matter of dispute, and then avail themselves of the fact for human therapeutics, remains to be seen.

At Marburg, where everything is magnificently arranged for scientific work of the most exact kind, it is easy to see how much the study of tuberculosis is occupying the attention of the head of the department. The brooding chambers are filled with thousands of cultures of tubercle bacilli and other rooms contain a number of evaporating apparatuses where at a low temperature under decreased

air-pressure a comparatively rapid concentration of the liquid of the cultures is secured. Not everything is given up to the study of tuberculosis, however. The observations for the still further perfection of the diphtheria antitoxin are continued and not without result.

The serum prepared under Behring's direction is put on the market by the Farbwurke (dye works, a stock company), formerly Meister, Lucius & Brenning, the well-known dye and drug manufacturers, to whom the antipyrin patent belongs. The members of the Congress for Internal Medicine at Wiesbaden were invited out to see the works at Höchst, not far from Frankfort, just after the close of the Congress. Besides seeing the preparation of the serum, they were shown the product as it is now put on the market. By a careful mixture of serums of different strengths the possibility of the most exact dosage has been secured. One may inject but 5 c.c. of serum, and in that have any number of antitoxic units required—100, 200, 300, 500, 750, etc.

An interesting fact that came out in the discussion of Behring's paper at Madrid is the observation that adults afflicted with tuberculosis do not stand injections of blood-serum well. That is to say, simple blood-serum injected into such patients produces an increased activity of bacterial growth, or else lessens tissue resistance, and so leads to a further invasion of the tuberculous process. This seems to be true, too, even of diphtheria antitoxic serum, the presence of the antitoxins not lessening this liability to undesirable and at times serious reaction in tuberculous patients.

The work on tetanus is, of course, continued under Professor Behring's direction. The discovery made in his laboratory some time ago that the central nervous substance possesses qualities that make it antitoxic for tetanus, has been confirmed by a number of observers in France and Germany. So far, however, it has been found to exist in but very small quantities, and in a practically insoluble state. None of the ordinary chemic solvents or any liquid as yet tried has taken up any of the substance from the tissues, so that its sphere of activity, and observations with it, are extremely limited. It is hoped that further experiments will make it more amenable to experimentation.

To an ardent medical devotee who wishes to make a medical pilgrimage I should certainly commend the road to Marburg. The town itself is most picturesquely situated in the prettiest valley imaginable. The clinics and laboratories are all magnificent new buildings, most of them having been erected within the last few years. No expense has been spared to make them thoroughly modern in every scientific appointment. Owing to the peculiar relations of the Prussian Government to the province of Hesse, in which the university is situated, money seems to be no object. The medical faculty is one of the best in Germany. If one wishes to study German student life in its most characteristic form, here is the place to carry out the observations. Professor Behring has a private laboratory of his own on the hill above the town. It is a pretty little stone building situated at the very summit, and the view from the windows over the picturesque

valley of Marburg is beautiful almost beyond description. Some time the ardent worshipers at the shrine of the new medicine will find a pilgrimage to the spot where, surrounded by all that is prettiest in Nature, the master studied out the hidden secrets for suffering humanity.

TRANSACTIONS OF FOREIGN SOCIETIES.

Paris.

HYPERCHLORHYDRIA PRODUCED BY ALKALIES—RESULTS OF THE SERUM-TREATMENT OF DIPHTHERIA IN THE PARIS HOSPITALS—BULLETS ARE NOT STERILIZED BY THEIR DISCHARGE FROM A GUN—CONTINENCE IN GASTRIC FISTULE—POSTERIOR VAGINAL OPENINGS FOR HIGH PELVIC ABSCESSSES—MEASURES ADVOCATED BY THE ACADEMY OF MEDICINE TO LIMIT THE SPREAD OF TUBERCULOSIS.

At the Medical Society of the Hospitals, April 15th, HAYEN spoke of hyperchlorhydria as produced by alkalies, and the habitual use of laxatives, such as rhubarb, podophyllum, and cascara. Thus, bicarbonate of soda, if given for a considerable length of time, will strongly increase the acidity of the stomach. This is due apparently more to the elimination of the alkalin salt than to any local effect upon the gastric mucous membrane. Hyperchlorhydria only follows the administration of alkalies in case there are numerous active glands in the stomach. If the gastric mucous membrane is degenerated so that the gastric juice is hypopeptic, the use of alkalies instead of producing hyperchlorhydria will depress the stomach and produce a condition almost of apergia. In other words, alkalies exaggerate when given continuously whatever abnormal chemic state may exist in the stomach.

MATHIEU expressed himself as in substantial accord with these views. He is not in the habit of prescribing long-continued doses of an alkali. It is better that a patient should take at the moment when pains from hyperacidity are coming on, a sufficiently large dose to afford relief. Alkalies and alkalin waters are, nevertheless, of benefit to patients suffering from a diminished secretion of gastric juice.

RICHARDIERE gave results obtained in the treatment of diphtheritic children at the Trousseau Hospital in 1897. Six hundred and ninety-six children were brought to the hospital for treatment of diphtheria during that year. Upon entrance, each once received an injection of antitoxin serum. The dose varied from 10 to 20 c.c. according to the age of the child. Of these 696 children, 125 died, a mortality of 17.9 per cent. If one leaves out of calculation 31 cases in which death occurred within twenty-four hours of entrance to the hospital, and before any serum was given, the percentage of mortality of the remainder is 14.1.

BARBIER said that the size of the dose of antitoxic serum ought not to be determined simply by the age of the child. More reliable guides are, first, evidences of diphtheritic intoxication, such as rapid anemia, prostration, rapid pulse; and second, the occurrence with the diphtheria, or before it, of another bacteriologic inflammation.

At the session of April 29th, SEVESTRE said that 580

patients were treated during 1897 for diphtheria in the Children's Hospital; 101 died, giving a mortality of 17.41 per cent.; or, excluding forty-three cases in which death occurred during the first twenty-four hours, the mortality was 10.80 per cent. It was interesting also to divide the cases according to the nature of the infection; thus, those children in whom streptococcal as well as diphtheritic inflammation existed had a mortality of 32.32 per cent., while all the others taken together had a mortality of 13.34 per cent. All the children received an injection of serum upon entrance. The dose was 20 c.c. or more, for those two years old and upward.

At the Surgical Society, April 20th, BROCA explained that while by the discharge of a gun its barrel is rendered sterile, the ball itself is not sterilized, and even if it were, it would make little difference since the probability of infection of the wound from bits of clothing, etc., is so great. Absolute asepsis of a gunshot wound is rarely possible. Experiments upon animals have shown that attempts at disinfection are almost useless; the indications for operation are due to injuries of the bones, viscera, or blood-vessels. If these do not exist a simple dry dressing which can be easily removed and watched is the best treatment unless septic complications arise.

At the session of April 27th, RICARD spoke of the favorable action of the valvular gastrostomy of Fontan. By this method the stomach is attached to the anterior abdominal wall, around a little circle an inch or two in diameter. The mucous membrane in the center of this circle sinks inward, so that a cone is formed with its apex in the cavity of the stomach. At this apex a minute opening is made. The effect of this position of the stomach wall is that no gastric contents escape through the fistula.

TUFFIER said that the continence or incontinence of a gastric fistula depends chiefly on its situation in the gastric wall. An opening which is near the cardiac end will give little trouble; but there often is great difficulty in raising the cardiac portion to the surface. Routier said that the simplest operation is usually the best; and that even incontinent fistulae will not be found inconvenient if a catheter is passed several times a day. The opening, whatever method is employed, should be made very small.

SCHWARTZ rejected the operation performed in two stages, since he had the misfortune to make an opening on the sixth day, not into the cavity of the stomach, but into that of the lesser peritoneum, and the accident was not discovered until a considerable quantity of food had been poured into that cavity.

MONOD stated that a similar accident had occurred in his hospital.

At the session of May 4th, MONOD said that he had forty times employed an opening into the posterior cul-de-sac of the vagina for the removal of purulent collections high up in the pelvis. It is necessary in this treatment to be on guard against neglecting a second abscess. Four times he had found such to exist after he had opened a perisalpyngeal pouch containing only serous fluid. In seventeen cases there was a double purulent focus on one side. One of these patients died. Four times there was

a double purulent focus on both sides, two of these patients dying. Hence the necessity in these cases of making a bimanual examination, after one focus has been opened, to discover if others are palpable.

At the Academy of Medicine, May 3d, GRANCHER read the report of the commission appointed to consider the best means of preventing the occurrence of tuberculosis. The report which was confirmed by the whole body contained the following recommendations:

1. Collect sputum in pocket bottles containing a colored solution of carbolic acid, five per cent., or at least a little water; to substitute for sweeping, wiping with a moist cloth; and to boil milk before it is drunk.

2. As far as family life is concerned, physicians were urged to control as far as possible the spread of the disease, both by the enforcement of hygienic regulations, and by the early diagnosis and treatment of phthisical patients, so that they may not become sources of infection.

3. In the army the temporary subjection of those persons who have a commencing phthisis to the regulations of Section 1, was advocated, as well as the permanent subjection to them of all persons in whose sputum tubercle bacilli are present.

4. The attention of those in charge of schools, stores, and work-shops should be called to the simplicity of preventive measures, and the necessity of their observance, in order that every family in the land may be free from this scourge.

5. In hospitals, tuberculous patients should be separately treated and separate hospitals for them should be provided in high altitudes.

6. Stock-raisers were to be advised to use the tuberculin test to keep their stock free from the disease, and all meat should be inspected, and if found to be infected, should be destroyed at the slaughter-house.

A new and permanent commission was appointed whose object shall be to further all efforts to prevent the spread of tuberculosis.

SOCIETY PROCEEDINGS.

FORTY-THIRD ANNUAL MEETING OF THE KENTUCKY STATE MEDICAL SOCIETY.

Held at Maysville, Ky., May 11, 12, and 13, 1898.

(Continued from page 701.)

THE President, J. M. MATTHEWS, M.D., of Louisville, in the Chair.

SECOND DAY—MORNING SESSION.

The resignation of Dr. W. L. Rodman as a member of the Society was read, as he will move to Philadelphia in the fall. It was stated that Dr. Rodman had attended eleven meetings of the Society without missing one, and had read eleven papers. He was elected an honorary member by a rising vote. A committee was appointed to canvass the Society for funds to be added to the Rush Monument Fund.

A number of papers on diphtheria were then read, the first by DR. C. W. AITKEN of Flemmingsburg, entitled

PATHOLOGY AND DIAGNOSIS OF DIPHTHERIA.

The author stated that the diphtheria bacillus is capable of being grown through several generations, which, after an interval of several months, is capable of producing the disease. This is not true of the non-pathogenic bacteria which resemble this germ. Nasal, pharyngeal, laryngeal, and faecal mucous membranes are most frequently affected. The first macroscopic change at the site of the disease is a passive hyperemia, an increase of secretion of mucus and necrosis of superficial epithelium. An important point is to be able to differentiate at the bedside. The throat of every sick child should be examined, as they so infrequently complain of the throat. There are no pathognomonic bedside means of diagnosis but there are many helps. Diffuse redness of the pharynx and high temperature indicate scarlatina, but the diagnosis is more difficult from follicular tonsillitis. In the latter, sudden onset is the rule, high temperature during the first twenty-four hours, no asthenia, rapid but full pulse, absent glandular swellings, reaches its height in twenty-four to thirty-six hours, no albumin in the urine unless very high temperature, membrane superficial and easy to remove unless accompanied by bleeding, it does not reform, appears on the first day and is nearly always bilateral. Microscopy is a great help, but both the microscopic and macroscopic findings must be taken into consideration. As to the microscopic technic, the use of the one-twelfth oil immersion lens is to be recommended, Loeffler's culture-medium and stain giving the best results. Animal inoculation is a final valuable confirmatory test.

TREATMENT OF DIPHTHERIA

was the title of the paper presented by DR. S. G. DABNEY.

The author considered the prophylaxis and treatment of nasal, pharyngeal, and laryngeal diphtheria. He considered the withdrawal of cases from quarantine too early was a frequent cause; a number of examinations of the throat should be made microscopically of scrapings from it and no antiseptic used at this time. Well-ventilated rooms and sunlight are valuable agents. Removal of enlarged tonsils and adenoids should be considered under this head, also prevention of public funerals. Antitoxin as a preventive was extolled on the weight of accumulated statistics. It gives an immunity of three weeks. Antitoxin should be used in all suspicious cases, the earlier the better the result. In laryngeal cases its use, even if late, is of great efficacy when assisted by the use of the intubation-tube. Comparatively little can be accomplished by the use of antitoxin after the third day; it should be given during the first twenty-four hours. Any practitioner who has read the report of the collective investigation of the American Pediatric Society and fails to use antitoxin should not be allowed to care for a case of diphtheria. Statistics were quoted showing the result of the use of antitoxin, both in private and hospital practice, and its use urged most emphatically. A concentrated dose is recommended, 600 units in mild cases to a child of two years; in severe cases, 1000 units. In laryngeal cases the prognosis is grave. Hypodermic injections should be made in

the thigh, back, or abdominal wall. In rare cases an eruption and pain in the joints may be caused, but nephritis is certainly not caused by it, and the frequency of this complication has been diminished since its use was begun. Stimulation is next in importance to the use of antitoxin, strychnin and whisky being of the most value. One ounce of whisky should be given to a child of four years when the pulse and depression indicate it. Muriated tincture of iron should be given when there is streptococcal infection. Local applications should consist of cleanliness rather than of antiseptics, using no force in applying them at any time. The author did not recommend the use of hydrogen dioxide. The proportion of the cases in which intubation is indicated has been much smaller since the use of antitoxin. Practice in intubation on the larynx of a dog was recommended to those who were unfamiliar with the technic of the procedure. Inhalations of steam was considered of valuable assistance. When the breathing becomes labored, as shown by drawing in of the clavicular spaces, insufficient expansion of the chest, great restlessness and evident distress, the tube should be inserted at once. In rare cases the membrane is pushed down in front of the tube. The tube should be left in four or five days.

A paper, entitled

MEMBRANOUS CROUP AND INTUBATION,

was read by DR. G. G. THORNTON of Gravel Switch.

The writer took the position that membranous croup and diphtheria are two distinct diseases, and based his opinion on the cases he has seen in which membranous croup has existed in patients who have not been exposed, and others who had been exposed and were not attacked by the disease. He never isolates a case of croup, and none had any trace of infection or exposure; others had been exposed to these and had not contracted the disease. It is often influenced by heredity. Antitoxin is not advised, as this disease is distinct from diphtheria. He has failed to find any remedy of avail among the host recommended. Intubation and tracheotomy are to be employed when indicated, preference being given to the former.

DISCUSSION.

DR. J. A. STUCKY of Lexington: I believe that I can hazard the statement that diphtheria is practically a stranger in Lexington, not more than fifty cases having occurred in the town during the last ten years. I believe there is a difference between diphtheria and membranous croup, the former a blood poison, a treacherous disease, contagious and infectious, leaves sequelæ, while in pseudo-diphtheria or membranous croup, the opposite is the condition. An early diagnosis is essential, and sun and fresh air are valuable prophylactics. I doubt the efficacy of treating the throats of other members of a family who have been exposed to infection. We should not tamper with the natural filtering properties of the nose. I believe there is some benefit to be had from the use of protoneuclein.

DR. J. H. SHOEMAKER of Morganfield: Diphtheria is a rare disease in my neighborhood, I having seen but few cases in the last thirty-three years of practice. I am in-

clined to the belief that it is a filth disease and a constitutional disease. Antitoxin has taken the fear of the disease which we formerly had away, and it should be used more often.

DR. J. H. LETCHER of Henderson: I wish to emphasize the importance of making an early diagnosis, for we are on the safe side when we suppose a case to be one of diphtheria and begin work early. I believe a good many more cases occur than are recognized.

DR. F. L. LAPSLY of Paris: I believe that there is some difficulty in determining whether a given bacillus is the true bacillus of diphtheria or a pseudo one, as they closely resemble each other. I consider the use of ice-cloths to the neck a valuable remedy, soothing and allaying lymphatic engorgement. Cases should be examined early and thoroughly, and antitoxin should be employed early, for I believe it is criminal to fail in its use.

DR. AITKEN, in closing: Only by animal inoculation can the differentiation be made in many cases between the pseudo and true bacillus. I would be most emphatic in the statement that croup and diphtheria are one and the same disease. The physical structure of the larynx and pharynx is not the same. When the larynx is affected the patients die from suffocation, and when the pharynx is the seat of trouble the death is from sepsis. It is a local disease from the beginning. I do not believe in the use of steam, as it favors the growth of the bacillus by supplying heat and moisture.

DR. S. G. DABNEY, in closing: My statement that steam is a good remedy was made from personal experience, as it certainly aids in the separation of the membranes. Those cases in which great glandular swelling of the neck occurs are cases of streptococcal infection, and ice applications certainly do a great deal of good. Diphtheria is certainly more common in cities, and there should be no question as to the diagnosis when a laryngeal case occurs after a follicular or membranous condition in the throat. Antitoxin has certainly caused us to see less of the complications in these troubles than formerly.

DR. W. L. RODMAN of Louisville read a paper, entitled

THE INFLUENCE OF AGE, RACE, AND SEX IN SURGICAL DISEASES.

It treated in an interesting way of the most common surgical conditions in the various races, especially the white, negro, and American Indian, and of the points of difference in each.

DR. T. C. EVANS of Louisville read a paper on

DEFLECTIONS OF THE NASAL SEPTUM.

Among the difficulties due to this trouble are deformity of the nose, distortion of the face, contraction of the alveolar arch, and dental irregularities. The complications and sequelæ are mouth-breathing, disturbance of speech, chronic deafness, hay fever, frontal headache, hypersecretion of the nasal cavities, defective drainage, diseases of the accessory sinuses, pharyngitis, laryngitis, and asthma.

The operation described by the writer for the relief of the condition is practically that of Dr. Morris J. Asch. A

general anesthetic is recommended, and as hemorrhage is usually profuse, precautions should be taken as to the position of the head. The instruments necessary are the Asch septal scissors, Adams septal forceps, two vulcanite tubes, and a probe-pointed septal knife. Digital exploration of the stenosed side is first carried out, and if adhesions are present they are dissected up. The first incision is made in the septum in a line of the greatest convexity and parallel with the floor of the nose, and a second incision at right angles to the first, intersecting it near its center. These incisions are extended to the limit of the cartilaginous septum, which divides the septum into four irregular and unequal triangles. An Adams forceps is now introduced, one blade in either nostril, and each triangle caught separately and twisted on its base to loosen its articulation and destroy its resiliency. The thoroughness with which this is done will insure the result. After irrigation of the nasal cavities the nasal tubes should be introduced, the hemorrhage ceasing at once. Irrigation should be practised every few hours at first, then every two days, and after the first week the patient can do it himself. The results of this operation are most excellent.

DISCUSSION.

DR. J. A. STUCKY of Lexington: I have not been very enthusiastic over the Asch operation for some time. In the majority of cases it is better to use the beak or bayonet-pointed knife than the scissors, as they are liable to injure the inferior turbinated bones when there is marked stenosis. The Asch tube has too large an external and too small an internal opening. When the patient is under an anesthetic and there is much bleeding it is easy to push the tube through the wrong place. I use a longer and narrower tube. Cocain should be used cautiously and never alone. Combine it with a one-per-cent. solution of resorcin and no ill effects will be noticed.

DR. S. G. DABNEY of Louisville: Many cases of nasal deflection do not require operation. The Asch operation is the best in older patients. I generally make the incision first, before the anesthetic is given, the use of the Asch forceps requiring general anesthesia later. The nasal septum is very tolerant of work done upon it. The bistoury makes the best and most accurate incisions. The Asch tube is open to many criticisms; the side openings are entirely unnecessary. I never use the cocain spray, and believe the reason I have never seen any toxic effect is due to the fact that I never use it except with an applicator to the place which it is desired to anesthetize.

DR. T. C. EVANS, in closing: I rarely use cocain in a spray except when the first cleansing is done after the operation and think it is needed then, as there is so much injured surface that it would be impossible to make the application by means of a cotton swab. I think the scissors is a valuable instrument to make the first incision with, using the bistoury afterward.

DR. HENRY E. TULEY of Louisville exhibited an obstetric outfit. This had been made for his personal use by a drug company, but because of the demand for them had been prepared for general sale. The speaker referred to the fact that there have been a number of out-

fits or kits suggested from time to time, and they have not proven practical because they have not been selected with the best interests of the patient, nurse, and accoucheur in mind, and have been too expensive. The one exhibited can be purchased for three dollars, and is within the reach of patients of all classes. The following articles are enclosed in a hermetically sealed box, after thorough sterilization, and instructions are printed on it that it must not be opened except by the physician or nurse in attendance. It contains the following articles: Lochial pads, an obstetrical bed, five yards of plain sterilized gauze, one-half pound of absorbent cotton, two dozen safety-pins, fountain-syringe, nail-brush, nail-file, antiseptic soap, antiseptic tablets (mercuric bichlorid), six ounces of a saturated solution of boracic acid, a tube of white vaselin, plain vaselin, one ounce of Squibb's chloroform, sterilized tape for the cord, cord dressing (made of balsam of Peru, m. xx, to ol. ricini $\frac{1}{2}$ ounce, which causes the cord to separate more quickly, and makes it more easy to care for, and minimizes the chances of infection), Credé eye solution, pipette, and fluid extract of ergot.

DISCUSSION.

DR. F. L. LAPELEY of Paris: These are useful articles but cannot be utilized in country practice as a rule. I use a strong cord for tying the funis, never using silk for this purpose, and use a dry dressing which is not changed until the cord falls off, which is between the third and fifth days as a rule.

DR. T. A. REAMY of Cincinnati: Looking toward asepsis, the outfit is a good one. I do not recommend douches either before or after labor, and only after labor when there has been manual or instrumental interference. In cases of prolonged labor there are conditions present which are favorable to the development of sepsis, and ergot should be given then only. Ergot can be injected, if deeply, and not cause an abscess.

DR. TULEY: I do not use the cord dressing exactly as recommended by Dr. A. E. Gallant, who first called my attention to it. He advises that only a slit be made in the gauze, the cord drawn through enough layers of it to cover it, the oil dressing applied, and the whole confined to the abdominal wall by adhesive strips, which are not removed or disturbed until the cord separates. I do not advise the use of the bichlorid as a routine practice for I think it unnecessary if thorough application of soap and nail-brush is carried out. The outfit is a most acceptable adjunct to the equipment of a lying-in chamber.

DR. F. F. BRYAN of Georgetown read a paper on

EXTRA-UTERINE PREGNANCY.

As a cause that is reasonable, it was suggested that mechanical conditions such as offered by obstructions to the passage of the ovum to the uterine cavity is a prominent one. Gravity, muscular action, and vibratile cilia are the best-demonstrated factors to this end. The causes that interfere are gonococci, strepto- and staphylococci, and all of the other members of the family of pus-producing organisms. Traumatism plays an important part. It is a fairly frequent condition, occurring as often as once in every 500 pregnancies. The usual signs of

pregnancy are modified, menses cease for three months, as a rule, and then reappear irregularly as to time, quantity, and quality. The expectant plan of treatment should be condemned. Medicinal treatment, consisting in the administration of morphin, strychnin, atropin, or electric-ity, should not be resorted to. Thorough surgical intervention is indicated in all cases.

MALIGNANT DISEASES OF THE UTERUS

was the title of a paper read by **DR. LOUIS FRANK** of Louisville.

He stated that the uterus is among the organs most frequently attacked by malignant processes. Malignant disease occurs between the ages of thirty-five and forty, and from fifty to sixty, although it may be found in the very young. The early symptoms are often obscure; the least irregularity during the climacteric period should arouse suspicion; suspicious cases should be subjected to microscopic examination; early operation is the only hope for cure; extirpation of the uterus after the disease is evident, after the appearance of cachexia, is harmful rather than beneficial; women should be taught to consult physicians for any irregularities of menstrual flow.

A paper, entitled

THE MIDWIFE AND MIDWIFERY,

was read by **DR. L. C. WADSWORTH** of Newport.

The writer stated that while Nature does in a majority of instances care for cases of labor, interference is often indicated and intelligent interference or assistance makes midwifery a science. The midwife attends the labor for a small fee and returns daily for nine days, washing the patient and baby and doing all the household work. In Kentucky midwives are especially exempt from State laws governing the practice of medicine. He felt that while they could not be entirely gotten rid of it would be a good plan if their education could be brought up to a standard and suggested that the way to accomplish this is to have laws enacted compelling them to procure a license and pass an examination for fitness. An ordinance governing this, as in effect at Newport, was read in substance.

DISCUSSION.

DR. EDWIN RICKETTS of Cincinnati: I have recently seen a family in which there were six cases of delivery and six cases of sepsis, all attended by midwives. I wish to go on record as being opposed to the midwife. I believe they should go. They are the cause of more puerperal peritonitis than any other being and the physician has to shoulder the blame, or at least cover up their mistakes, and I think the time has come when we, as intelligent physicians, should demand their getting out.

DR. REAMY: I believe because a woman is a midwife she should not be charged with every case of puerperal sepsis, procidentia, and other complications. Abroad the midwives are encouraged and recognized by the profession. Restrictions should be placed on these women, when they desire to practise midwifery, until they are thoroughly prepared. If they are trained in aseptic principles, and in the anatomy and physiology of the parts,

they should be allowed to practise in proper quarters.

DR. BULLITT: I believe the view of Dr. Reamy the better one and the proper one. The midwives we have here now should go but good midwives should be welcomed. Many women prefer to be served by women if they are capable in occasions of this kind. Midwives should be educated to recognize abnormalities and to care for the normal cases.

A paper was read by DR. GEORGE E. DAVIS of Lawrenceburg, entitled

THE PHYSIOLOGY OF THE LIVER AND THE ROLE IT PLAYS IN DIGESTION AND NUTRITION.

DR. ISAAC A. SHIRLEY of Winchester read a paper, entitled

A CASE OF HEMATOMA OF THE VULVA FOLLOWING LABOR; OPERATION; RECOVERY.

Hematoma occurs but once in 1600 deliveries, according to one observer, and one in 14,000, according to another. The case reported was that of a primipara, nineteen years of age, the labor a dry one four hours long. Twenty minutes after labor there was a slight prolapsus of the uterus, and a tumor appeared in the left labium. Three days later the pulse was 130 and temperature 104° F., with a gangrenous odor from the pent-up lochial discharges. The clot was turned out and the cavity packed and thorough drainage obtained, without hemorrhage. Generally speaking varicose veins, a large head and severe expulsive pains are given as causes of this trouble. If occurring during labor immediate interference may be necessary.

THIRD DAY—MORNING SESSION.

The nominating committee made the following report: President, Dr. David Barrow of Lexington; first vice-president, Dr. H. K. Adamson of Maysville; second vice-president, Dr. James B. Bullitt of Louisville; secretary, Dr. Steele Bailey of Stanford; treasurer, Dr. C. W. Aitken of Flemmingsburg; librarian, Dr. B. W. Smock of Louisville; chairman, committee of arrangements, next meeting, Dr. John G. Cecil of Louisville; place of next meeting, Louisville, May, 1899. Dr. B. L. Coleman was elected chairman of the board of censors and of the committee on topics for the next meeting, and Dr. Henry E. Tuley chairman on publication.

DR. TULEY offered the following resolutions, which were unanimously adopted:

WHEREAS, Strenuous efforts are being made by the Marine Hospital Service to have the Caffrey bill passed by the House of Representatives and Senate of the United States, which practically gives the Marine Hospital Service complete control if this bill is passed to create a National Bureau of Public Health;

Resolved, That this society condemns the Caffrey bill and endorses the bill drafted by the American Medical Association and endorsed by the American Public Health Association, and urges the Kentucky senators and representatives to earnestly support the Association bill.

WHEREAS, It has been brought to the attention of the Kentucky State Medical Society in session at Maysville,

Ky., May 11, 1898, that there is a bill now pending before the Congress of the United States relative to the suppression of vivisection in all its forms, be it

Resolved, That we, the Kentucky State Medical Society, fully realizing and deeply appreciating the great achievements in the domain of medicine and surgery which may be directly attributable to a practice of legitimate vivisection in the past, and feeling that its suppression as called for by the said pending bill would be a most serious blow to research in the future, do most heartily condemn the passing of such a bill; and be it further

Resolved, That a copy of these resolutions be spread upon the minutes of this society and that a copy be sent to each representative and senator from Kentucky, with an autograph letter from the secretary of this society, urging them to use their influence to defeat the passage of this bill.

After the reading of a number of papers by title, in the absence of the authors, the society was declared adjourned.

TWENTIETH ANNUAL MEETING OF THE AMERICAN LARYNGOLOGICAL ASSOCIATION.

Held at Brooklyn, N. Y., May 16, 17, and 18, 1898.

FIRST DAY.

THE President, DR. THOMAS R. FRENCH, of Brooklyn, in the Chair.

In his opening address the president said:

"As the result of the work of Pasteur, Lister, and Koch a new pathology has been created. The foundation of medical education is to-day normal histology and pathology. The searchlight of biology and bacteriology is only beginning to reveal the fields for study, which doubtless contain many truths that the future will disclose. Our dependence on the microscope in diagnosing disease is growing with each year, but a proper conservatism in regard to its findings must be observed. The useless removal of important structures due to the not infrequent simulation by inflammatory tissue of conditions requiring thorough eradication demands serious consideration.

"Three classes of workers are needed in scientific work; the first is the original investigator who seeks for truth for its own sake; the second, the teacher who diffuses the knowledge acquired by the original investigator; the third is he who applies knowledge to its practical uses. Tyndall, in an address delivered in New York twenty-five years ago, said that in no other country would science, in its highest forms, exert a more benign influence than in ours. At that time those who confined themselves to work in one line were few; now their number is legion and the tendency toward a special field for practice is growing stronger each year. In no department of medicine have the workers increased so rapidly as in ours. Years of practice together with natural aptitude are absolutely necessary in order to acquire skill in the surgical treatment of diseases of the larynx, but much less practice is required to permit of intranasal surgical work, and this fact is unquestionably accountable for the large amount of indifferent or mischievous surgery which is

yearly growing more noticeable. The advice of Sir Morrell Mackenzie that a man should practise medicine and surgery during the first ten years of his career is of greater value to-day than ever before. It is wise to remind a student of the advice given by Dr. William Osler, 'as a man values his future life let him not get early entangled in specialism.' To a certain extent it is true that many workers in various departments of medicine are becoming too narrow in their studies, devoting themselves to the acquisition of a limited field at the expense of general medical and surgical information. The charge is also made that specialism is doing great harm because of the charlatans who live and thrive under its influence, yet it is a fact that there are fewer of them to-day than ever before; this condition is due, not to specialism, but to the weakness and selfishness of mankind. Despite the evils that are growing out of specialism, the fact that men are centering their thoughts on special lines of work more than ever will result in the largest amount of good to mankind, for we are beginning to realize that concentration is the price we must pay for efficiency. It behooves us to think well on these things and to secure to specialism the minimum of harm and the maximum of good."

DR. J. N. MACKENZIE of Baltimore then read a paper on

THE LARYNGOTRACHEAL NEOPLASMS OF TUBERCULOSIS.

The larynx and the trachea are the seat of various forms of neoplasms which may be divided into three groups. To the first group belong that variety which may be termed granular hyperplasia (ordinary granuloma). Anatomically this variety is allied to granulation tissue and may be regarded as a conservative effort to promote cicatrization. If a section be made through the tubercular ulcer more or less clearly defined hyperplastic granulation is found, which is the effort on the part of Nature to isolate the tubercular process from the adjacent tissue. In the second group may be placed that variety of growth termed papillomata; this is less common than the preceding and may be found in any part of the larynx, especially in the posterior wall. The gross appearance shows nothing by which to differentiate it from simple papillomata, and the microscope reveals nothing of a tuberculous nature. Stürk long ago insisted that these growths are one of the earliest signs of tuberculosis, and since his time they have often been found to be the precursors of trouble in the lungs.

The third variety is the true tubercular tumor which is found in the windpipe. By tubercular tumor is meant an isolated, well-defined growth occurring independently of ulceration or tubercular infiltration and covered by normal mucous membrane, with little or no tendency to ulcerate. These tumors are of great rarity, the experience of the essayist having yielded but three cases. These growths are probably due to secondary deposits from the lungs or to metastasis. They have little tendency to ulceration, which, if it occurs at all, takes place at a late stage. The only sure way of reaching a correct diagnosis is by means of the microscope. The color, situation, presence of tuberculosis in the body, etc., are of some value.

DR. W. F. CHAPPELL of New York read a paper, entitled

LARYNGEAL TUBERCULOSIS AT THE LOOMIS SANATORIUM.

This sanatorium is 2300 feet above the level of the sea, and the surrounding country is hilly and undulating. The temperature varies from 0° F. in the winter to from 70°-80° F. in the summer. The prevailing winds are northwest and southwest and there is but little humidity in the air. The institution is conducted on the cottage plan. In tubercular laryngitis the local treatment consists in applications of lactic acid, creosote, ichthyoil, nitrate of silver, etc. Clothing, exercise, and food play an important rôle in the systemic treatment. Hypodermic injections of horse serum are largely used and the effect on temperature and cough is far in advance of any other agent yet used. The history of the cases shows improved command of the voice, greater clearness, lessening of pain, better general condition, increase of weight, and absence of bacilli.

DR. W. K. SIMPSON of New York demonstrated

THE USE OF THE BERNAY SPONGE IN THE NOSE AND NASOPHARYNX, WITH SPECIAL REFERENCE TO ITS USE AS A HEMOSTATIC.

The Bernay sponge consists of cotton fiber which has been subjected to many hundred pounds of pressure and compressed to a disc of one-sixtieth of an inch in thickness. By the absorption of liquids it will attain fifteen times its size and twelve times its weight. Its great absorbing power makes it useful both as a cleansing agent and afterward to pack the wound. For the purpose of tamponing the anterior and posterior nares they are far more efficient than cotton or gauze, which have to be frequently inserted; this inconvenience is done away with by the use of the Bernay sponge. The slow absorbing power of cotton or gauze is no guarantee against hemorrhage. In case of epistaxis the sponge should be cut in semicircular size and introduced into the nostrils with the convexity upward.

DR. BEVERLY ROBINSON of New York read a paper on ENLARGEMENT OF THE LINGUAL TONSIL AS A CAUSE OF COUGH.

For many years it has been a recognized fact that enlargement of the lingual tonsil may be the cause of cough, although few appreciate the condition. It is apt to occur in persons of a lymphatic or sluggish temperament. The beginning of this trouble is insidious, particularly in young adults. If the cough lasts for a few hours only, the general practitioner, after obtaining negative results from a chest examination, thinks that it is either a stomach or a reflex cough. Possibly he may think of laryngeal inflammation. An enlarged tonsil may be inspected with the laryngeal mirror, but this examination is often difficult and sometimes impossible. In children of from two to three years of age a laryngeal cough without reasonable cause is usually due to pressure upon an enlarged tonsil. This condition is often treated as an irritable cough for a long time without obtaining satisfactory results. In

small children an irritative cough may be nothing more than the initial stage of whooping-cough. Impaired condition of the general health or the continuance of a catarrhal relaxation are predisposing causes. Anemia, constipation, and habitually irregular habits as regards food and rest are also responsible for this condition. In children overfeeding may cause congestion of the lingual tonsil. Rheumatic dyscrasias frequently found in adults are causative factors which should be attended to.

DR. JOHN O. ROE of Rochester read a

REPORT OF A CASE OF FRACTURE AND DEPRESSION OF THE ANTERIOR WALL OF THE MAXILLARY ANTRUM, WITH RESTORATION OF THE DEPRESSED WALL.

On February 15th, X., aged thirty-five years, received a severe blow with the fist which broke in the anterior wall of the antrum. Three days afterward, when the speaker first saw him, the face presented a one-sided appearance on account of the cavity situated in the cheek. In operating, the upper lip was raised, the dissection being carried high; by keeping close to the bone there was but little hemorrhage. A hole was drilled into the antrum through the canine fossa. By means of a curved sound the crushed wall of the antrum was raised to its proper position. The cavity was cleansed and iodoform gauze introduced. On the sixth day the dressing was removed and the cavity cleansed. The hole in the antrum no longer existed and the contour of the face was entirely normal.

DR. ROE then read a paper, entitled

THE TREATMENT OF FRACTURES OF THE NOSE.

These fractures are infrequent on account of the yielding character of the cartilaginous septum. They are usually accompaniments of fracture of the superior maxilla, and are usually attended by severe hemorrhages. Fractures of the nose are usually bilateral, and may be classified as simple, compound, and comminuted. Injury to the lacrimal apparatus affects the resonance of the voice, and therefore one should be careful in examining these parts.

DR. HENRY L. WAGNER of San Francisco read a paper on

EARLY DIAGNOSIS IN WHOOPING-COUGH.

He said that the duration of this disease can be shortened and its spread prevented by the adoption of proper measures. A diagnosis can be made at once by a bacteriologic examination of the secretions. The nose is the primary seat of infection. The secretions from a normal mucous membrane contain but few bacteria, while in whooping-cough a large number of characteristic bacteria are present. The bacterium of whooping-cough when full grown is two or three times as long as broad, is rounded, and somewhat thickened at the ends and is divided apparently in the middle. It is surrounded by a capsule not unlike Friedlander's pneumococcus. A one-percent. acetic-acid solution is used in staining, followed by Loeffler's solution, which consists of fuchsin, 1 part; carbolic acid, 5; glycerin, 50, and water 100 parts.

Dr. Wagner also read a paper on

LEPROUS ULCER OF THE LIP.

This condition is rare, only one case having been reported. At the International Congress it was held that the primary seat of this contagious disease is the mucous membrane of the upper respiratory tract.

DR. EMIL MAYER of New York read a paper on
THE USE OF THE SCHLEICH'S SOLUTIONS FOR ANESTHESIA IN NOSE AND THROAT OPERATIONS.

In summing up he said that Schleich's theory that the boiling-point of the anesthetic has an adaptability to the temperature of the body has been amply proven. The Schleich mixtures are safe for short operations. There is no stage of excitement. The tension of the pulse is increased. The patient becomes rapidly conscious.

SECOND DAY.

DR. S. W. LANGMAID of Boston read a paper, entitled
THE HOARSENESS OF SINGERS.

The symptoms of the condition are swelling of the nasal mucous membrane, enlarged turbinates and congested larynx. Occasionally there is absence of catarrhal affection, but there is disability resulting from impaired muscular power of the glottis. The acute catarrhal condition may be superimposed upon long-existing infection of the cavity by catarrh of the nose. The predisposing factors of this affection are neuroses, constitutional defects, anemia, rheumatism, atmospheric conditions, etc. Weakness of the intrinsic muscles—the tensors, the adductors, and the sphincters—always exist. The bending inward of one or both cords, the divulgance of the posterior portion of the cord, and what is more constant, deflection of one or both cords are conditions often noted.

DR. J. EDWIN RHODES of CHICAGO read a paper, entitled

SPASM OF THE TENSORS OF THE VOCAL CORDS.

Dr. Mackenzie was the first to describe this condition. Dysphonia spastica is a very rare condition, Dr. Mackenzie having seen only thirteen cases. The causes of this affection are an abnormal use of the voice, and possibly a neurotic condition not yet understood. It is present in incipient multiple sclerosis and is usually connected with some nasal affection. The symptoms appear on attempted phonation. The voice jerks when an attempt is made to pass from a low note to a high one and there is difficulty in getting started. There is an involuntary breaking in the speech. One of the peculiarities of the disease is that cocaine used in the nose relieves the spasm for some time.

The prognosis is very unfavorable. In the treatment local applications, strychnin, sprays, etc., are of no benefit. The best treatment is long rest for the voice, general tonics, such as iron, arsenic, iodid of potassium, electrical treatment, etc., which may give some relief. Astringent applications are occasionally of some value. The use of cocaine in the nose cannot be recommended.

DR. F. W. HINKEL of Buffalo read a

REPORT OF A CASE OF LIPOMA OF THE LARYNX.

In 1883, a patient, now aged fifty-five years, was conscious of a tumor at the back of her tongue and consulted

Dr. Park, who removed it. After some years there was a gradual return of the symptoms and Dr. Park again removed a tumor smaller than the first. In 1894 he again removed one similar to the one removed the previous year. In 1895 the patient consulted the essayist for cough and difficulty in swallowing. She stated that her father had died of cancer of the face. From the left epiglottis a pinkish body was growing which was soft or doughy in consistency and there were varicosities at the root of the tongue. Having difficulty in drawing the loop through the snare it was necessary to remove the growth in three pieces. It was dense and hard and no bleeding accompanied the operation. Behind was left some fulness of the epiglottis. In 1898 she again consulted him for discomfort, and a tumor was found at the free edge of the epiglottis and bending toward the right. The left aryepiglottic fold was thickened. There was no involvement of the ventricular band. The growth resembled a polyp. It was readily removed with forceps and scissors and was found to be three-quarters of an inch in length. The epiglottis presented a curious appearance, the epiglottic fossa being filled with tissue similar to that removed. The persistent occurrence of the tumors suggested the advisability of a microscopic examination. Dr. Wright reported the case to be one of lipoma of the larynx.

Dr. Hinkel also read a paper reporting

DEATH IMMEDIATELY FOLLOWING AN OPERATION FOR NASOPHARYNGEAL ADENOIDS UNDER CHLOROFORM ANESTHESIA.

A boy, six years of age, never a mouth-breather or snorer, complained of ear trouble and deafness. Examination of his throat revealed a moderate amount of lymphoid tissue in the vault of the pharynx. He continued to be troubled with deafness and when eight years of age it was decided to operate. Chloroform was used, the mask being applied dry and the chloroform dropped on it by an experienced anesthetist, who was prepared for any emergency. The boy had a systolic murmur which was probably not due to organic lesions. Vomiting and spasm of the glottis occurred. One ounce of chloroform in all was used. The lymphoid tissue was found to be quite firm. Careful watch of the respiration and pulse was kept. A temporal pulse was noted. The operation had been finished when suddenly respiration ceased; no pulse could be felt and there were no heart sounds noted. Digitalis, strychnin, and other drugs were given, and also hypodermics of ether, atropin, and digitalis. Cold effusions were also tried. Artificial respiration was kept up for two hours. No post-mortem was permitted.

DR. ARTHUR AMES BLISS of Philadelphia read a paper, entitled

THE RECURRENCE OF ADENOIDS AFTER EXCISION.

In three of his cases in which there had been recurrence the operation had been performed in two instances from the region of the vomer. To prevent the return of the tumors the best method is complete and thorough removal. Incomplete removal often results in their return.

DR. D. BRYSON DELEVAN of New York read a paper, entitled

PRESENT METHODS FOR THE OPERATIVE TREATMENT OF PHARYNGEAL ADENOIDS.

Attention had not been called to this subject for twenty years. In the surgical treatment of these adenoids two points should be kept in mind, thoroughness and humanity. Thoroughness means the complete removal of the condition, as any tissue left behind is certainly unhealthy, and half-way measures are useless. As to the humanitarian side one should choose as far as possible those methods which inflict the smallest amount of pain, shock, and injury. The statement that this operation is not painful is incorrect. The patients questioned in regard to the pain during a long period of years invariably replied that the removal of the adenoids had been accompanied by sharp pain.

The paper was discussed by Drs. Gleitsmann, Casselberry, Wagner, Thrasher, Logan, Swain, Bryan, Rice, and Hinkel.

THIRD DAY.

The discussion of Dr. Delevan's paper was continued. In his closing remarks the essayist said that during the first two years he used chloroform, and in operating upon more than two hundred patients he had had two accidents, neither of them fatal. Unfavorable reports that came from abroad, together with these accidents, caused him to discontinue the use of chloroform. Ether often is not given properly and produces complete relaxation of the pharynx, while only partial relaxation is wanted. People in this country are more familiar with the administration of ether than with that of chloroform. Adults do not require a general anesthetic; the paper read referred only to children. In operating about the orifices of the Eustachian tubes the finger should be used, and with great care. Any nasal obstruction may give rise to failure of the adenoid operation. He did not think that ether had anything to do with the amount of hemorrhage present. Certain anomalies, such as stammering, had been removed after adenoid operations.

DR. J. C. MULHALL of St. Louis read a paper, entitled

THE UPPER RESPIRATORY ORGANS AND THE GENERAL HEALTH.

The national triad of affections is catarrh, dyspepsia, and nervous prostration, all due to our bad habits of living. Diseases of the upper air-passages may produce disturbances of the general health and it is equally true that if the general health suffers there may result diseases of the upper air-passages.

Prophylaxis should begin in childhood. There should be as near an approach to outdoor life as possible. The head covering should permit of free ventilation; the same should be true of foot covering. But three meals a day should be eaten. Hot bread should be eschewed. Rubber shoes and mufflers should be done away with. Careful diet does as much for the outside skin as it does for the inside. Nasal affection cannot be properly treated until the ptomaines are swept from the system. The Salisbury method, consisting of beef diet, hot water, and plenty of exercise is very beneficial in properly selected cases.

DR. HENRY L. WAGNER of San Francisco read a paper, entitled

NATURAL IMMUNITY; A BIOLOGICAL RESEARCH, and was followed by DR. J. W. FARLOW of Boston, who reported

A CASE OF DISEASE OF THE ACCESSORY SINUSES.

This case was of particular interest from the fact that it followed scarlet fever. There was a thickening of the superior maxilla and absence of discharge from the nose. The eye was pushed outward, downward, and forward, and there was possibly a secondary involvement of the antrum of Highmore.

DR. HENRY L. SWAIN of New Haven read a paper, entitled

SOME OBSERVATIONS ON THE USE OF AQUEOUS EXTRACT OF SUPRARENAL GLANDS, LOCALLY, IN THE UPPER AIR-PASSAGES.

He concluded his paper as follows:

1. We have in the aqueous extract of suprarenal glands a powerful, local, nasoconstrictor agent, and a contractor of erectile tissue, which it is safe to use in very considerable amounts without any dangerous or deleterious effects locally or to the general constitution of the individual.

2. These local effects can be reproduced in the same individual, apparently, any number of times without entailing any vicious habits to either the tissue or the individual.

3. The use of the extract seems rather to heighten the effects which may be expected from any given drug which may be used locally after it.

4. In acute congestions it has its widest application and greatest opportunity for good, but in certain chronic conditions of the hay-fever type where redundant tissue seems prone to develop it can be relied upon as one of the most helpful adjuvants which we have at command.

5. The only difficulty seems to be the production of it in quantities and preventing its decomposition on standing.

DR. CLARENCE C. RICE of New York read a paper on

ACUTE INFLAMMATORY CONDITIONS OF THE UPPER AIR-PASSAGES ACCOMPANIED BY LARYNGEAL EDEMA.

In the classification of this disease he wished to have it understood that laryngeal edemas due to diphtheritic infection were to be carefully excluded, which had not been done in many of the cases published. He thought it was also well to leave out of consideration cases of non-inflammatory edema, or so-called "passive edema," which are only a symptom of general disturbance and due to cardiac, renal, and hepatic disease. Another line of cases which properly should be excluded are those which might well be termed "chronic" edema of the larynx, where the swelling is occasioned by a chronic local disease, such as tuberculosis, syphilis, and malignant disease. The late Sir Morrell Mackenzie stated that in nearly all the instances of so-called idiopathic edematous laryngitis, the disease is due to blood-poisoning, and that he had met with it among hospital physicians, medical

students, and nurses. He stated, also, that in every case that had come under his notice ample opportunity for acquiring septicemia had been present.

Dr. Rice tabulated for his paper 41 cases reported by journals from the year 1887 to date, exclusive of 14 cases by Semon. He found that but 4 or 5 cases were reported annually and that the prevalence of *grippe* since 1890 has not materially increased the number of reported cases. In about fifty per cent. of all the cases the cause is put down as "catarrhal," that is, as due to exposure to cold. The author cited 3 cases of moderate laryngeal edema of his own following peritonsillar inflammation; 2 cases of edema of the larynx due to traumatism, that is, one following the use of the galvanocautery applied to the lateral wall of the pharynx, and the other to a foreign body which lodged in the pyriform sinus; and 2 cases of edema due to constitutional causes. These 2 cases seemed both to be preceded by inflammation at the base of the tongue, possibly due to inflammation of the lingual tonsil. There was no indication of diphtheritic exudation. Exactly what the infection was in these cases it was difficult to determine, but in neither was there pre-existing inflammation of the respiratory tract unless of the tongue. The author thought the cases very rare in which there is an acute primary edematous laryngitis which exists without relationship to any other inflammation in this location. He thought the possible existence of diphtheritic poisoning in many of these cases should be more carefully considered, and that it is likely that in some which are put down as primary and acute are really secondary to renal disease. Extraordinary exposure to cold, together with the effects of alcohol and tobacco, are potent etiologic factors.

At the executive session the following were elected to active fellowship: Dr. J. W. Goodale of Boston, Mass., thesis, "A Contribution to the Histopathology of Acute Tonsillitis;" Dr. D. Braden Kyle of Philadelphia, thesis, "The Position of the Orifice of the Eustachian Tube and the Possibility of Catheterizing It through the Mouth;" Dr. G. Hudson Makuen of Philadelphia, thesis, "Artistic Breathing."

The officers elected for the ensuing year are as follows: President, William E. Casselberry of Chicago; first vice-president, J. W. Gleitsmann of New York; second vice-president, F. Whitehill Hinkel of Buffalo; secretary and treasurer, Henry L. Swain of New Haven; librarian, Jonathan Wright of Brooklyn; delegate to the Council, Thomas R. French of Brooklyn; representative to the Congress of Physicians and Surgeons, W. K. Simpson of New York; members of the Council, Thomas R. French of Brooklyn, John O. Roe of Rochester, W. H. Daly of Pittsburg, and Charles H. Knight of New York.

Chicago was chosen as the next place of meeting, the time to be at the discretion of the Council.

To Remove the Odor of Iodoform.—Ordinary mustard flour has been recommended for the removal of the extremely clinging and disagreeable odor of iodoform from the hands. Orange-flower water also is said to accomplish a like result.

REVIEWS.

INTERNATIONAL CLINICS. Edited by JUDSON DALAND, M.D., Instructor of Clinical Medicine and Lecturer on Physical Diagnosis in the University of Pennsylvania, J. MITCHELL BRUCE, M.D., Physician to and Lecturer on the Principles and Practice of Medicine in the Charing Cross Hospital, London, England, and DAVID W. FINLEY, M.D. Professor of the Practice of Medicine in the University of Aberdeen. Vol. IV., Seventh series. Philadelphia: J. B. Lippincott Co., 1898.

THE present volume of the "International Clinics" contains some excellent lectures. Among the more notable ones are: "A New Department in Therapeutics," by Dr. Roberts Bartholow; "The Value of Venesection in Certain Cases of Heart Failure," by Dr. Francis Warner of London; "The Treatment of Secondary Syphilis," by Dr. John E. Hays; a striking article on the "Treatment of Emergency Cases in Common Practice," by Dr. James F. Rinehart. Professor Klemperer of Berlin contributes an instructive lecture on diabetes mellitus, and Dr. Boas furnishes a contribution on the present diagnosis of gastric diseases by chemic investigations. An instructive lecture is that of Dr. Charles L. Greene on the differential diagnosis of typhoid fever. The departments of neurology, surgery, gynecology and obstetrics, ophthalmology, laryngology and rhinoscopy, and dermatology are well covered as usual.

A SYSTEM OF MEDICINE BY MANY WRITERS. Edited by THOMAS CLIFFORD ALLBUTT, M.A., M.D., LL.D., Regius Professor of Physic in the University of Cambridge. Vol. IV. New York: The Macmillan Co., 1897.

THE standing of this classical system of medicine is not impaired by the present volume. Its contributors, as well as its articles, combine to furnish a volume of unusual merit and interest. The volume opens with a discussion of diseases of obscure causation, including rheumatism in its various forms, rickets, gout, diabetes, and lardaceous disease. Dr. Garrod writes of rheumatism, and Dr. Saundby of diabetes. The next division is devoted to diseases of alimentation and excretion, including articles on the general pathology of digestion, by Drs. Ralfe and Soltan Fenwicks; the general pathology of secretion by Dr. Rose Bradford; shock and collapse by Dr. Cobbett, and closes with diseases of the mouth and esophagus by Drs. Wills and Rolleston. The diseases of the stomach follow, and contain articles by the editor, by Drs. Lauder Brunton, Leith, Stocker, Dreschfeld, and Hale White. Dr. Lee Dickinson considers subphrenic abscesses and diaphragmatic hernia. Dr. Playfair has an admirable article on abdominal diagnosis from a gynecologic standpoint. Mr. Treves contributes a classical paper on peritonitis. We know of nothing better than Mr. Treves' conception of acute peritonitis as described by him in this volume. It must be read to be thoroughly appreciated. Other diseases of the peritoneum are discussed by Allchin. The diseases of the intestines ("diseases of the bowels") are thoroughly considered.

Dr. Lauder Brunton writes of fecal evacuation and on diarrhea, and Mr. Treves on intestinal obstruction. The diseases of the colon are described by Dr. Hale White. Dr. Herbert Allingham considers the differential diagnosis of diseases of the anus and rectum. The diarrheas of children are considered by Dr. Eustace Smith.

This volume is illustrated with the same profuseness and generosity that have characterized its predecessors. The book is handsomely made, and forms a valuable and splendid accompaniment to the volumes that have gone before. We have previously stated that Allbutt's System of Medicine would long be considered among the classics of distinctly modern medical literature. We have nothing to detract from this assertion, and feel more thoroughly convinced of it than before after perusal of the present volume.

THERAPEUTIC HINTS.

For Chancroid. — Daily applications of guaiacol are highly recommended as effecting an early cure. A small quantity is first employed to anesthetize the part, which is then thoroughly swabbed with the guaiacol to produce a caustic action.

Abortive Treatment of Acute Rhinitis. — COURTADE recommends hot nasal douches (122° F.), with a mildly antiseptic solution. RABOW claims equally good results from the use of fine common salt as a snuff.

For Soft Corns. —

B	Iodi	.	.	.	.	.	gr. ii
	Collodii flex.	.	.	.	.	.	3 iii
	Spiritus	.	.	.	.	.	3 i
	Potass. iodi	.	.	.	.	.	gr. ii.

M. Sig. Apply at night.

For Stye. — The following combination is very efficacious in the treatment of styes:

B	Tinct. camphore	.	.	.	.	.	m. xv
	Sulphuris precip.	.	.	.	.	.	gr. xv
	Aq. calcis { aa	.	.	.	.	.	3 iiss
	Aq. rosæ	.	.	.	.	.	Pulv. acacie

M. Sig. External use.

Hemostatic Action of Calcium Salts. — SILVESTRI has obtained excellent results from the use of the hypophosphite of calcium in cases of metrorrhagia, epistaxis, and gastric and intestinal hemorrhage. He prescribes it in the form of cachets of 15 grains each, one to be administered every two hours, until from eight to ten doses have been taken.

For Acne and Furunculosis. —

B	Syr. calcis lactophos.	.	.	.	.	.	iii
	Ol. morrhue	.	.	.	.	.	iv
	Ol. amyg. amaræ	.	.	.	.	.	gtt. iii
	Aquæ	.	.	.	.	.	i
	Pulv. acacie	.	.	.	.	.	q. s.

M. Ft. emulsion. Sig. One tablespoonful three times a day.—PURDON.